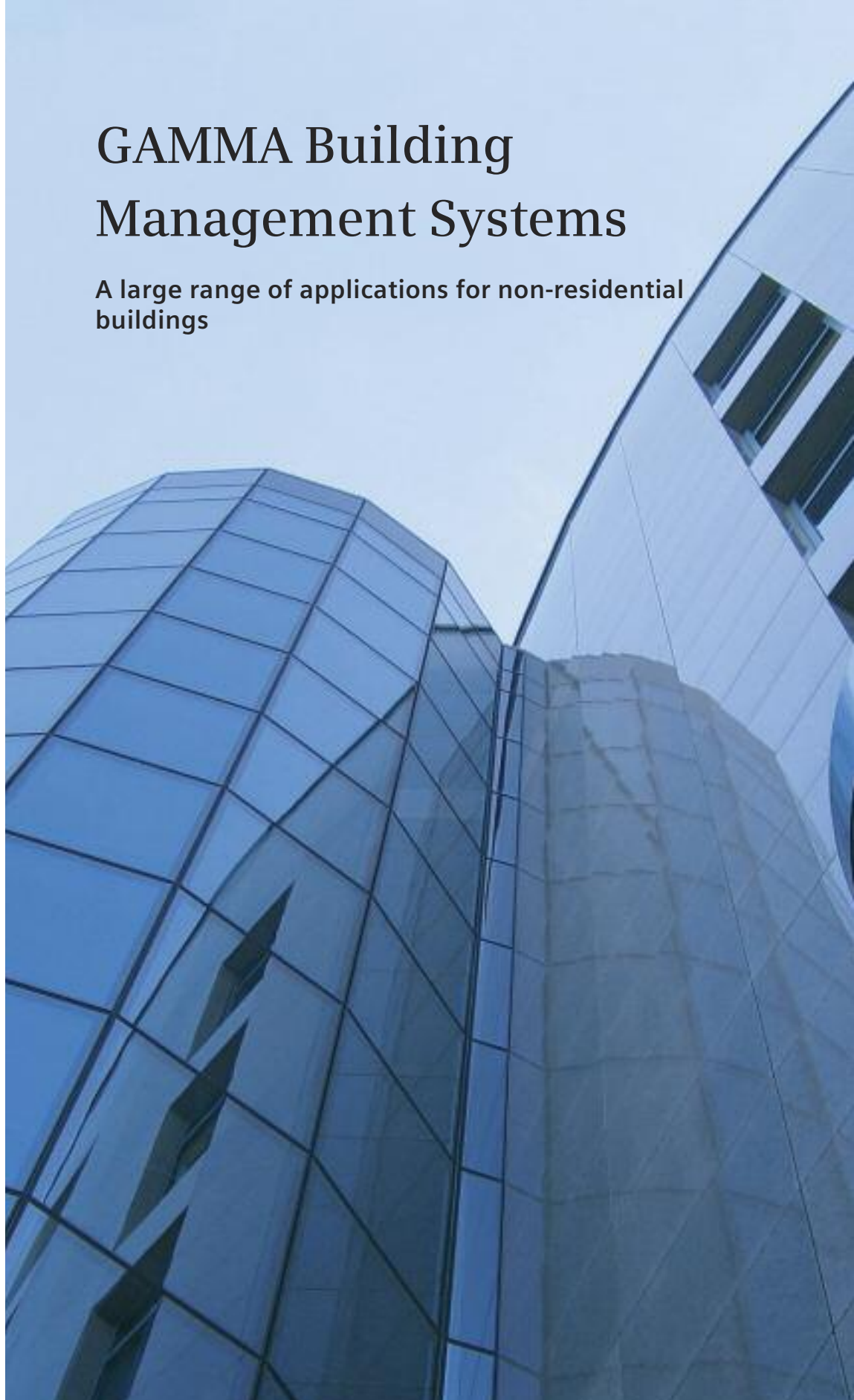




GAMMA Building Management Systems

A large range of applications for non-residential
buildings



Answers for infrastructure.

SIEMENS



Expertise for your construction project

An investment founded on competence. New buildings must satisfy an abundance of requirements: they must be attractively designed, functional and economical in everyday use. They must allow flexible use of space and be adaptable to the wishes of individual tenants. The lighting and indoor atmosphere must merge convenience with energy efficiency, and people and assets must be adequately protected against hazards and damage. Today, all these requirements can be met thanks to *GAMMA instabus*, the innovative building management system. And thanks to a partner like Siemens with a sound reputation for competent support – and a portfolio of solutions for electrical installation from A to Z.

GAMMA *instabus* – Building Management Systems from Siemens

■ Security of investment with future-proof design

The technical equipment of a building needs to be enduring and adaptable to future modifications or extensions. A future-proof building management system provides a strong foundation.

■ Operational efficiency

Make low energy and operating costs a reality with GAMMA *instabus*, the innovative building management system.

■ Safety first

The building management system contributes enormously to the protection of people and assets.

■ Customized convenience

Lighting, shades, ventilation, heating, and cooling – users' wishes are GAMMA *instabus* command.

■ Display and operate without limitations

Whether locally, centrally, or remotely, all functions can be controlled exactly in line with your requirements – even externally by telephone or over the Internet.

■ Integration with third-party systems

No other supplier offers such a varied spectrum of solutions for connecting GAMMA *instabus* to other systems in the same building with the help of KNXnet/IP.

■ Totally Integrated Power

Comprehensive power distribution for residential and non-residential buildings from a single service provider – all the way from medium-voltage transformers to individual lighting.

Highlights

- High security of investment
- Maximum operational efficiency
- Enhanced safety
- Improved convenience
- Control of lighting, shading, and room temperature
- Intelligent integration of all building electrical functions with GAMMA *instabus*
- Comprehensive energy distribution – from medium voltage to the socket outlet
- A savings potential for all project participants – the building investor, planer, installer and the user/operator



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Duesseldorf Airport trusts in a future-proof building management system from Siemens.

Make decisions – with confidence

Decide today, and know you have made the right investment for tomorrow. When you invest in a building today, you need to be certain that the technology will still be state-of-the-art tomorrow.

■ Worldwide standards

With the future-proof technology embedded in GAMMA *instabus*, you can be sure of making a safe decision. GAMMA *instabus* is based on KNX, the open and non-proprietary international standard derived from ISO/IEC 14543. KNX features in compatible products from more than 100 manufacturers worldwide. By interacting with other systems in the same building, it creates unprecedented flexibility not only during the planning phase but also if the room usage changes.

■ Flexibility for the future

In office blocks, school buildings, airports, sports arenas, old people's homes, and sheltered housing, GAMMA *instabus* demonstrates its superiority whenever a flexible response to changes in room usage or size is essential.

The basic system can be easily adapted or expanded at any time. Siemens also guarantees to keep spare parts available for many years ahead.

In short: a decision for GAMMA *instabus* represents a secure investment in proven technology that is ideally placed to meet the challenges of today and tomorrow.

Highlights

- The use of KNX, an open bus standard, helps to ensure security of investment
- High flexibility during the planning phase and over the entire operational lifespan
- Changes and enhancements are possible at any time





Commerzbank Frankfurt has also opted for GAMMA *instabus*.

■ **Commerzbank, Frankfurt**

Investment protection is a top priority at Commerzbank Frankfurt – and the building management system is no exception.

■ **Airport Duesseldorf**

Expandability, flexibility and safety are essential at Duesseldorf Airport. Which is why the airport praises the virtuosity of GAMMA *instabus*.





Efficient GAMMA *instabus* technology blends harmoniously with ambitious architecture at the Head Office of T-Mobile in Bonn.

Efficiency you can count on

Daily operating costs have a decisive impact on the efficiency of any building. Cost sources include oil, electricity, gas, water, maintenance, and changes in usage.

■ Control over costs

An investment in GAMMA *instabus* pays off quickly – particularly in terms of building operating costs. Energy savings are achieved in many areas: the rooms are only heated, cooled, ventilated, or lit when they are actually in use. As long as the sun is shining, the sun protection is automatically controlled to avoid unnecessary heating and cooling costs. What's more, it is coordinated with the lighting control in order to reduce lighting costs by maximizing the influx of daylight.

■ Maximum flexibility

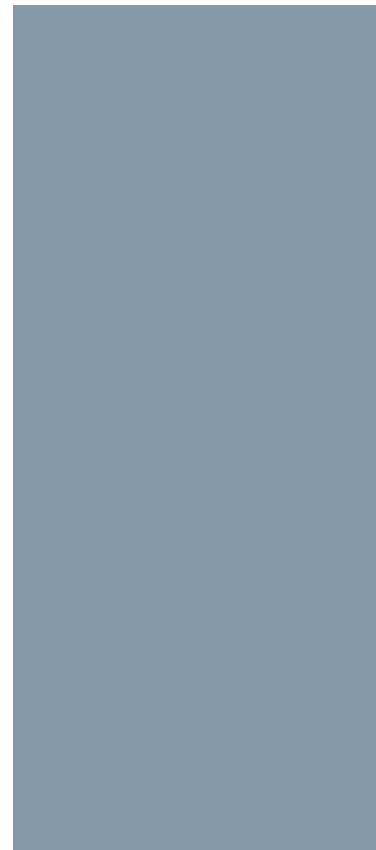
You also keep a firm grip on maintenance costs: repairs can be controlled by means of failure signals and restricted to work that is actually essential, while options such as remote diagnostics, control, and parameterization cut traveling times as well as the costs they entail.

Significant outlay is necessary if the room usage changes – as it invariably does at some time or other. GAMMA *instabus* installations offer unbeatable flexibility here: the building functions can be quickly and inexpensively adapted to the new circumstances – often without having to lay any additional cables.

Highlights

- High energy and cost savings thanks to energy-efficient controls
- Simple and low-cost maintenance is ensured by remote diagnostics, operation, and parameter settings
- Flexible and inexpensive modification of building functions





Automatic shutter/blind control with GAMMA *instabus* helps to save energy at Technikum Vienna.

■ Technikum, Vienna

At Technikum Vienna, Austria's leading university of applied sciences, GAMMA *instabus* is responsible for sun and glare protection. On a sunny day, the weather station automatically activates the sun

protection. And if the wind gets up, the exterior blinds are automatically raised to prevent potential damage. Optimum user convenience is allied with efficient air conditioning and lighting.





Aagau technical college in Windisch, Switzerland, deploys a total solution for energy efficiency based on GAMMA *instabus*.

Your safety is our primary concern

Safety is a critical aspect of any building control system. In addition to increasing the operating reliability of systems and equipment, GAMMA *instabus* also protects people and assets – 24 hours a day.

■ Safety must be guaranteed

GAMMA *instabus* recognizes and reports break-ins, fires, leaks, and power outages.

GAMMA *instabus* smoke detectors smell out a fire, localize it, and trigger the necessary action before it has a chance to develop into a major blaze. Among other things, it switches off electrical devices, orders the evacuation of elevators, and switches on escape signs and lighting. System or equipment failures and leaks are instantly detected by GAMMA *instabus*. They can then be reported to a local control center or communicated over the Internet any time of the day or night. Stoppages and consequential damage are reduced to a minimum or even eliminated altogether.

■ Leave nothing to chance

Doors and windows that have been accidentally left open are a thing of the past with GAMMA *instabus*, which now detects and reports them by means of window, door, and lock contacts. GAMMA *instabus* also senses any unwanted visitors with the help of glass break and motion detectors, and sounds the alarm accordingly.

Highlights

- Early recognition and warning of fires, malfunctions, and system failures
- Automatic response activation
- Display of open windows and doors





In schools and public buildings GAMMA *instabus* provides for additional security.

■ **Aargau technical college, Switzerland**

In the renovated main building of Aargau technical college in Windisch, Switzerland, KNX is used to recognize, visualize and report malfunctions.

■ **Marie Curie Gymnasium, Brandenburg**

Thanks to GAMMA *instabus* doors and windows are no longer left inadvertently open at Marie Curie Gymnasium, a high school in the eastern German town of Dallgow-Döberitz.





Individual and comfortable building management provided by GAMMA *instabus* at NICI AG.

Convenience tailored to your needs

When it comes to technical infrastructure, every building – from offices through hospitals and schools to sports arenas – has its own unique requirements. GAMMA *instabus* offers the ideal solution for every building – convenience made to measure.

■ Convenience that suits your needs

In sunshine or darkness, summer or winter, room users always enjoy optimum lighting and a pleasant temperature.

■ Scene control

You can store or call up different switching and dimming states for the room lighting, the position of the sun protection, and the room temperature setpoint at the press of a button. Scene control is especially useful in conference rooms, big halls, and theaters.

■ Partition control

In large rooms that can be divided by partitions, such as conference rooms, dining halls, or indoor sports facilities, GAMMA

instabus allows the lighting, sun protection, and room temperature to be automatically controlled for just the visible part of the room (which varies according to the position of the partitions).

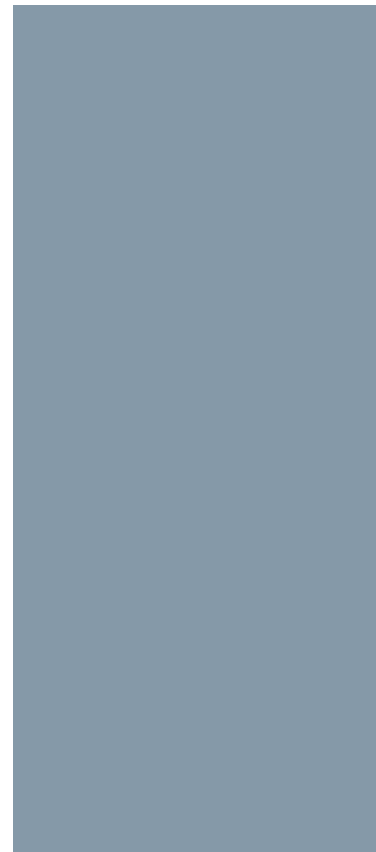
■ Individual convenience

GAMMA *instabus* creates a harmonious symbiosis between room temperature, sun protection, and lighting. The air conditioning can be either time or presence controlled. The automatically set illuminance, sun protection position, and room temperature can be altered by room users at any time to comply with their individual preferences.

Highlights

- Maximum comfort despite minimal energy consumption
- Simple and intuitive operation with a functional design
- Custom convenience and comfort with the flexible control of room functions





Convenience in the VIP lounge at the Siemens Arena Vilnius in Lithuania, courtesy of GAMMA *instabus*.

■ **NICI AG, Upper Franconia**

The creative climate at the gift article manufacturer NICI AG in Altenkunstadt in Germany is properly set in scene by GAMMA *instabus*. Lighting, shutter/blind- and heating control in every room are perfectly coordinated.

The convenient lighting control is impressively made tangible in dawn and night.

Flexibility in detail: soundproof partition walls transform a large room for 120 people into three smaller meeting rooms.





This modern, six-story office building in Vilnius, Lithuania, is also the home of the Siemens Lithuania Head Office.

All functions at your fingertips

In addition to conventional local control – either wire-bound or wireless by infrared and radio – GAMMA *instabus* also facilitates central control and indication of all functions and operating states plus remote control by telephone or over the Internet.

■ Display and operation

Switching, dimming, and control – all GAMMA *instabus* functions can be operated locally by the user with pushbuttons, displays, touch panels, or hand-held controllers for infrared or radio.

■ At any time and from any place

GAMMA *instabus* allows events and states to be indicated, logged, and archived on a central PC. It goes without saying that all functions can also be centrally controlled.

■ Everything under control

Commercial buildings usually stand empty at night. Total control over everything that happens inside is thus all the more important. GAMMA *instabus* is connected to the telephone network or the Internet, meaning that all relevant events are automatically forwarded either to the occupant's own maintenance engineer or to an external service company, which can also control the system remotely.

Highlights

- Centralized operation on location, by telephone, or from the Internet
- Display, log, and archive data on a PC or directly on location
- Automatic forwarding of important events





GAMMA *instabus* is also used in the conference room.

■ **Siemens headquarters, Lithuania**

At the Siemens Head Office in Vilnius, every individual lamp or the lighting for the whole area can be switched on and off on a PC.

■ **Mobile access**

Controls at the touch of a button – lighting and blinds can be operated at any time from your mobile device.





The floodlighting at Abuja Stadium in Nigeria is controlled entirely by GAMMA *instabus*.

Combining all benefits

GAMMA *instabus* conforms with ISO/IEC 14543, the international KNX standard, and can therefore be easily networked using KNXnet/IP with the following building management systems: OPC, Profinet, and BACnet.

■ Complete integration

GAMMA *instabus* can be integrated with building data and communication systems, access control systems, break-in or fire reporting systems, elevator controls, emergency lighting, as well as with master building automation controls.

Siemens is the leading provider for the integration of GAMMA *instabus* with other third party systems.

An inhouse data and communication network can be used on the one hand to connect GAMMA *instabus* subsystems and on the other to control and indicate functions and states either locally on workstation PCs or centrally via a building control center.

The integration of GAMMA *instabus* with other building management systems promotes operating economy and safety. Connecting it to an access control system enables room functions to be adjusted as people enter or leave the room, for instance.

A building management system based on GAMMA *instabus* connects perfectly to a higher-level building automation system, giving the latter access to all room functions and the entire electrical installation equipment.

Highlights

- Flexible integration with existing building systems
- Leading provider of integration services for third-party systems
- Safe and efficient operation





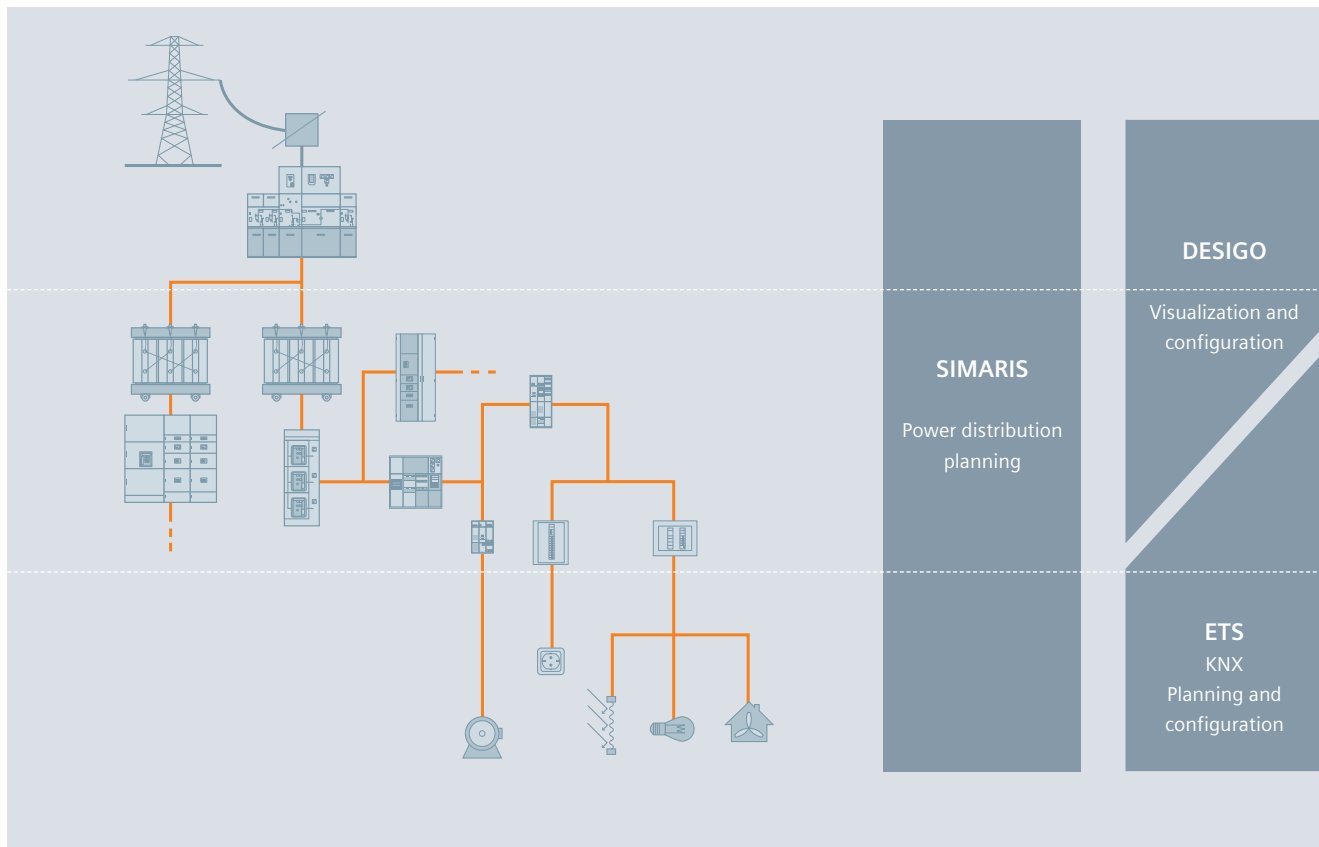
Flood-light operation at Abuja Stadium in Nigeria with GAMMA *instabus*.

■ Sazka Arena, Prague

At the Sazka Arena in Prague GAMMA *instabus* enables the quick display of control functions thanks to LAN connectivity.

GAMMA *instabus* provides optimal control because of its integration with building-automation systems.





Integrated power distribution in the building.

Integrated planning and commissioning.

Profit from Totally Integrated Power

Every building has to be supplied with power – at the right time, in the right quantity, and in the right place. We at Siemens have evolved a unique concept to master this challenge: **Totally Integrated Power**.

■ Solid infrastructure for electrical distribution

Totally Integrated Power comprises products and systems for electrical-power distribution in residential and non-residential and buildings – from the medium-voltage transformer station all the way to individual lamps.

Totally Integrated Power is based on products and systems that are optimally adapted to one another. Communication

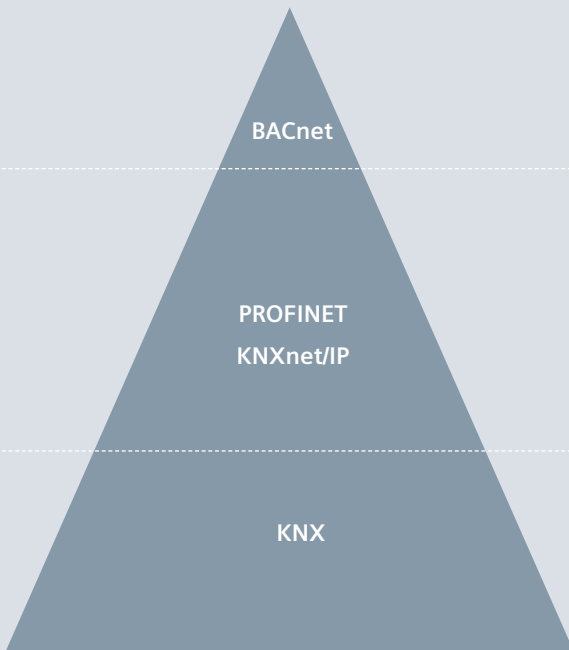
systems and software modules provide for the optimal integration of electrical systems with building automation. It adds inestimable value for all stakeholders throughout every phase of a project.

Investors benefit from maximum investment protection and cost transparency. Planners profit from fast, reliable planning, and accurate dimensions.

Highlights

- Totally Integrated Power covers all phases of electrical distribution
- Totally Integrated Power products and systems ensure long-term Return on Investment
- Fast, reliable planning; properly scaled systems; transparent costs





Integrated communication.

Electricians appreciate the simplicity of configuring, ordering, and installation. And users praise its operating economy and safety.

As a component of Totally Integrated Power, GAMMA *instabus* plays a key role by com-

binning the individual building subsystems in an efficient overall system.



Countless references document our expertise



Airport Duesseldorf, Germany



Commerzbank, Frankfurt, Germany



T-Mobile Headquarters, Bonn, Germany



Technikum, Vienna, Austria



Aagau technical college, Windisch, Switzerland



Marie Curie Gymnasium, Brandenburg, Germany



Nici AG, Upper Franconia, Germany



Siemens Arena, Vilnius



Siemens headquarters, Lithuania



Abuja Stadium, Nigeria, Africa



Sazka Arena, Prague, Czech Republic

Welcome to the world of innovative thinking

■ Innovation

Siemens invests a great deal in both manpower and research and development. This results in a steady stream of new insights, technologies and inventions that enable us to offer products and systems of the highest quality, reliability, safety and user friendliness to our customers.

■ Reliability

With a history of over a hundred years, Siemens is an established, reliable partner. Siemens will continue to provide trouble-free product and system updates and innovations for many years to come, which ensures your investment for the future.

■ Comfort

Siemens products and solutions ensure comfort in your working and living environments. Today, tomorrow and for decades to come. That's why numerous customers around the world rely on Siemens.

■ Protection

Siemens offers all components needed for safe and efficient power distribution, as well as everything for complete plant, personal and device protection – always tailored to the specific requirements of industry, non-residential and residential buildings.



Siemens AG
Industry Sector
Electrical Installation Technology
P.O. Box 10 09 53
93009 REGENSBURG
GERMANY

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