

SIEMENS



ALPHA

Installation technology perfectly packaged – with ALPHA distribution boards

The complete system for buildings, infrastructure
and industrial applications

Answers for infrastructure.



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ALPHA distribution boards and terminal blocks

An electrical installation in buildings, infrastructure or industrial applications is only as cost-efficient and functional as the technology it is based on. A consistent system such as the ALPHA product family offers clear advantages: simplified installation, shorter installation times, avoidance of mistakes, and logistics advantages thanks to optimized warehousing. You also profit from the well-thought-out platform structure, which offers the perfect alternatives for all your power distribution requirements.



ALPHA – a comprehensive range for all applications up to 1,250 A

Over 160 years of experience and our comprehensive know-how make us a strong and reliable partner. Thanks to our expertise and international positioning, we're able to develop innovative products and systems worldwide for safe and intelligent power distribution, and supply them according to your requirements.

Perfectly equipped for every eventuality: The ALPHA product family offers a comprehensive range for all your power distribution requirements, with distribution boards for currents up to 1,250 A, molded-plastic distribution systems and terminal blocks. Whether in buildings, in infrastructure or in industrial applications, with ALPHA you can always count on a high quality, safety and stability.

Our comprehensive range for your business success

Distribution boards – first choice for all applications

With ALPHA distribution boards, you can choose from a full range of small, wall-mounted and floor-mounted distribution boards for currents up to 1,250 A. In this way you profit not only from the high quality, safety and stability of our products, but also benefit from consistent technology and uniform design thanks to the well-thought-out platform structure. Their ease of installation and modular construction throughout offer additional advantages, for example minimized stock-keeping and simplified procurement. The practical planning and configuration software ALPHA SELECT supports you by planning, configuration and ordering of distribution boards. The SIKUS 1600 power distribution board, a compact modular distribution board system is the perfect addition for currents up to 1,600 A.

Molded-plastic distribution system – a tough performer

The ALPHA 8HP molded-plastic distribution system is an effective solution in the low-voltage sector wherever high standards of robustness and chemical, weather or UV resistance are demanded.

The special feature of the 8HP molded-plastic distribution system is that it links seamlessly into the ALPHA system concept and can accommodate a large number of built-in devices. Thanks to its modular design, the ALPHA 8HP molded-plastic distribution system can be adapted flexibly to all requirements.

Terminals blocks – always the right connection

Systematic simplicity is how you could describe the philosophy behind ALPHA FIX terminal blocks. They are used for space-saving connection of incoming and outgoing cables in switchgear and control-gear assemblies and control engineering. Other fields of application are traffic and automation engineering and the building installation sector. The connection technologies of ALPHA FIX terminal blocks can be used in combination since they have the same accessories. This gives you a higher degree of flexibility and simplifies configuration and setup of the control cabinet.

Highlights

- Perfectly coordinated system components thanks to well-thought-out platform structure
- Quality and safety for all applications up to 1,250 A
- Low-cost, easy installation thanks to uniform design

Read the QR code with your QR code reader



Our complete portfolio of products and systems offers safe, flexible and cost-efficient options for use in low-voltage power distribution and electrical installation engineering – for residential buildings, infrastructure or industrial applications.

SIKUS 1600 – the economical low-voltage power distribution board

Highlights

- Personnel safety and plant protection thanks to verified design tested to IEC 61439-1/-2
- Side-by-side cabinet system in frame type construction
- Compact, space saving design for high cost efficiency
- Flexibility through modular design

Flexibly expandable

SIKUS 1600 is of modular construction throughout and offers you standardized side-by-side cabinets for implementing your installation. The system is designed for indoor applications and can be set up free-standing or wall-mounted. Thanks to its space saving compact design, SIKUS 1600 is extremely cost efficient and is perfectly suited as the basis for low-voltage power distribution boards in administrative and functional buildings, in industrial buildings, in commercial buildings and in public buildings such as schools, hospitals or shopping malls.

Fast and reliable planning

A core aspect of the system is the use of dedicated, standardized, series produced assembly kits that can be combined together in almost any variation. This means that SIKUS 1600 can optimally fulfill any requirement in the low-voltage power distribution sector. And the future is already built in since the design of the SIKUS 1600 has already been tested according to the requirements of IEC 61439-1/-2. The configuration tool SIMARIS CFB will support you at every stage from configuration to installation and documentation.

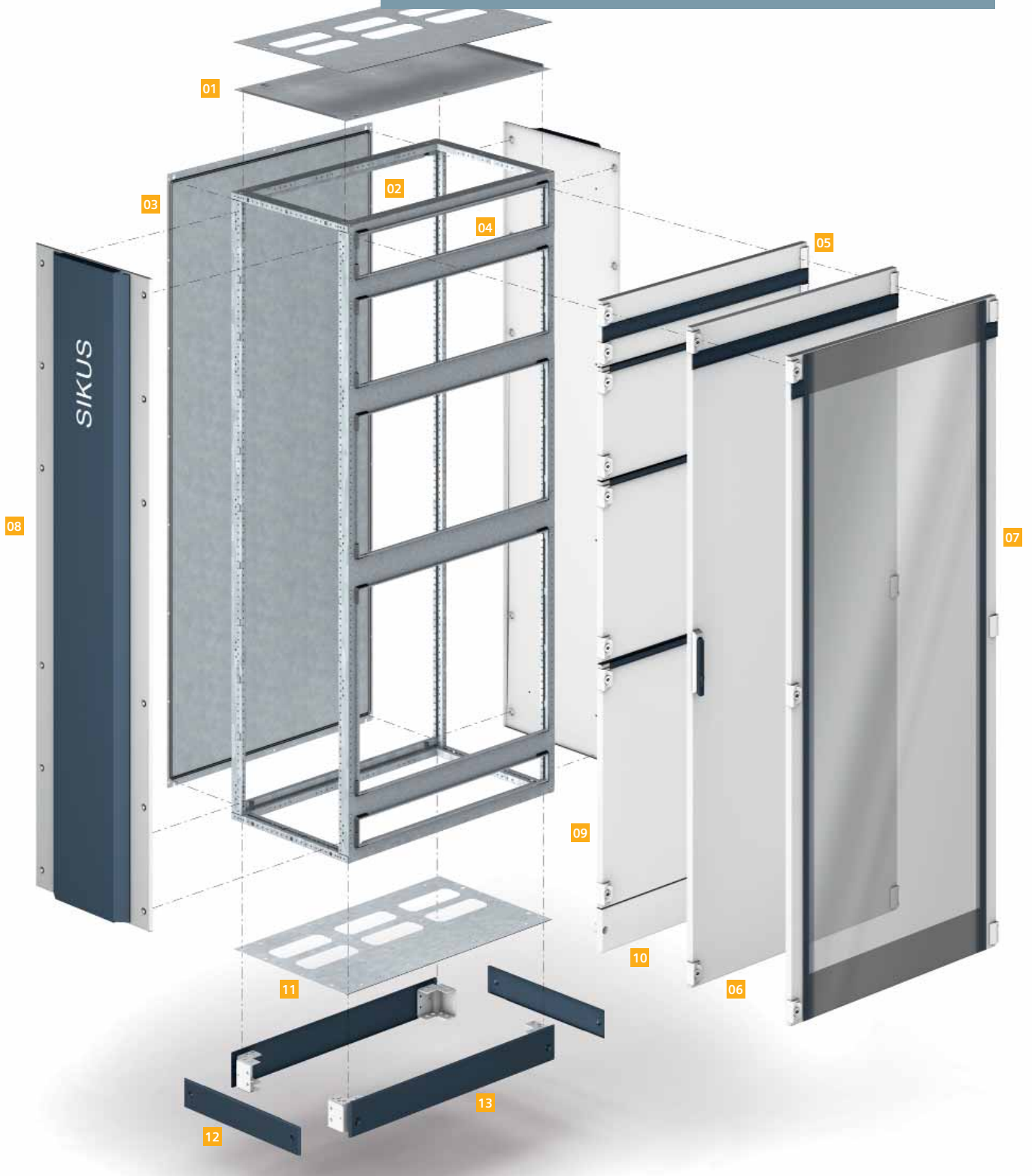
For further information, please visit:
www.siemens.com/sikus

Cabinet type	Incoming feeder, outgoing feeder and coupling unit	Incoming feeder, outgoing feeder and coupling unit	Outgoing feeder	Outgoing feeder
Protection device and switchgear	Air circuit-breaker 3WL	Molded-case circuit breaker 3VL	Fuse switch disconnecter 3NJ4	Assembly kits for side-by-side installation devices 8GK
Rated current	Up to 1,600 A	Up to 1,600 A	Up to 630 A	Up to 630 A



SIKUS 1600 is designed as a modular system for electrical power transmission and distribution in low-voltage systems for rated currents up to 1,600 A.

- 01 Top plate
- 02 Rack
- 03 Rear panel
- 04 Module door upgrade for protection mode IP55
- 05 Fixed cover top, module door top
- 06 Door, section-height
- 07 Inspection door, section-height
- 08 Side panel with design section
- 09 Module doors
- 10 Fixed cover base, module door base
- 11 Floor plate with flange apertures
- 12 Side panel base
- 13 Base



ALPHA distribution boards – the flexible platform structure for your installation

Modular solutions are faster

Whether you require a small, wall-mounted or floor-mounted distribution board, when you choose our ALPHA distribution boards you invest in a common platform structure with a full range of versions from 160 A to 1,250 A. Their modular design gives you a wide variety of installation options with device-specific assembly kits, suitable for all distribution board sizes. Equipment can be individually matched to all requirements depending on the specific project. With this system you can cover every installation need, for small or large projects, for buildings or for infrastructure.

Platform structure for easy installation

ALPHA distribution boards are an attractive solution not only because of their inherent values, but also thanks to their uniform design concept and high quality surface finish. The advantages are clear: a perfect, visually harmonious appearance, and very easy installation thanks to a specially developed, standard installation concept. The platform structure creates considerable savings potential, especially in warehousing, thanks to the use of identical parts.



ALPHA distribution boards cover every installation requirement in power distribution from 160 A to 1,250 A, for buildings, in infrastructure or in industrial plants.





ALPHA 160 – versatile in use

Whether in residential, administrative or commercial buildings: If small distribution boards do not provide adequate equipment and wiring space for your application, ALPHA 160 wall-mounted distribution boards are the best choice. They are suitable for currents up to 160 A and can be equipped highly flexibly and individually. Their modular design gives you a very wide range of installation options with only a small number of standard components.

ALPHA 400 – one size larger

ALPHA 400 wall-mounted distribution boards connect seamlessly to ALPHA 160 wall-mounted distribution boards, e. g. for the use in office buildings. They offer you obviously more space which you can use for your individual needs. With a mounting depth of 210 mm they are also suitable for surface-mounting in restricted basement rooms. For flush-mounting there are special FM distribution boards with integrated cover frame.

ALPHA 630 – plenty of space for real power

With ALPHA 630 floor-mounted distribution boards you're well equipped for industrial and functional buildings, e.g. public buildings, theaters and schools. These floor-mounted distribution boards offer you increased equipment and wiring space for currents of up to 630 A. ALPHA 630 floor-mounted distribution boards are also available in the dustproof and splash waterproof IP55 version for demanding environments.

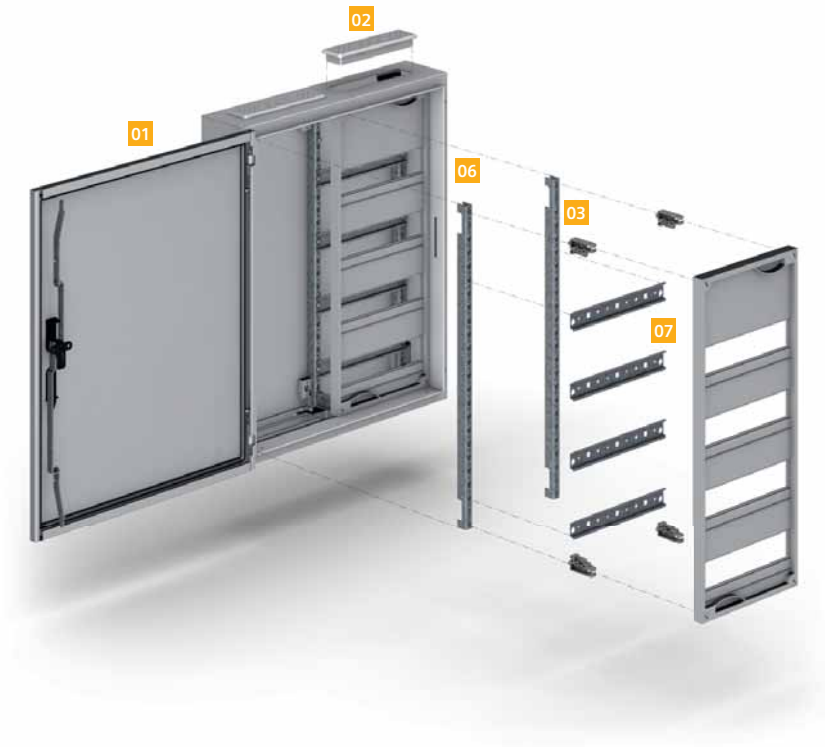
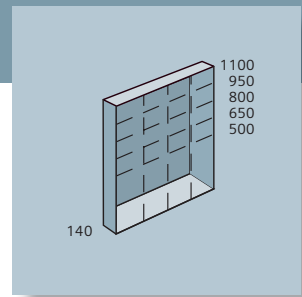
ALPHA AS – for more power

ALPHA AS modular distribution boards offer you an ideal, flexible range for highly demanding application areas with large power requirements, e.g. manufacturing companies and small and medium-sized enterprises. ALPHA AS enables you to route busbar runs through several floor-mounted distribution boards arranged side by side and provides a power distribution of currents up to 1,250 A with little effort.

Highlights

- Comprehensive range for installation requirements from 160 A to 1,250 A
- Individual, project-specific installation and equipment options due to modular design
- Short installation time thanks to quick assembly kits and installation modules
- Optimized warehousing through systematic concept of identical parts

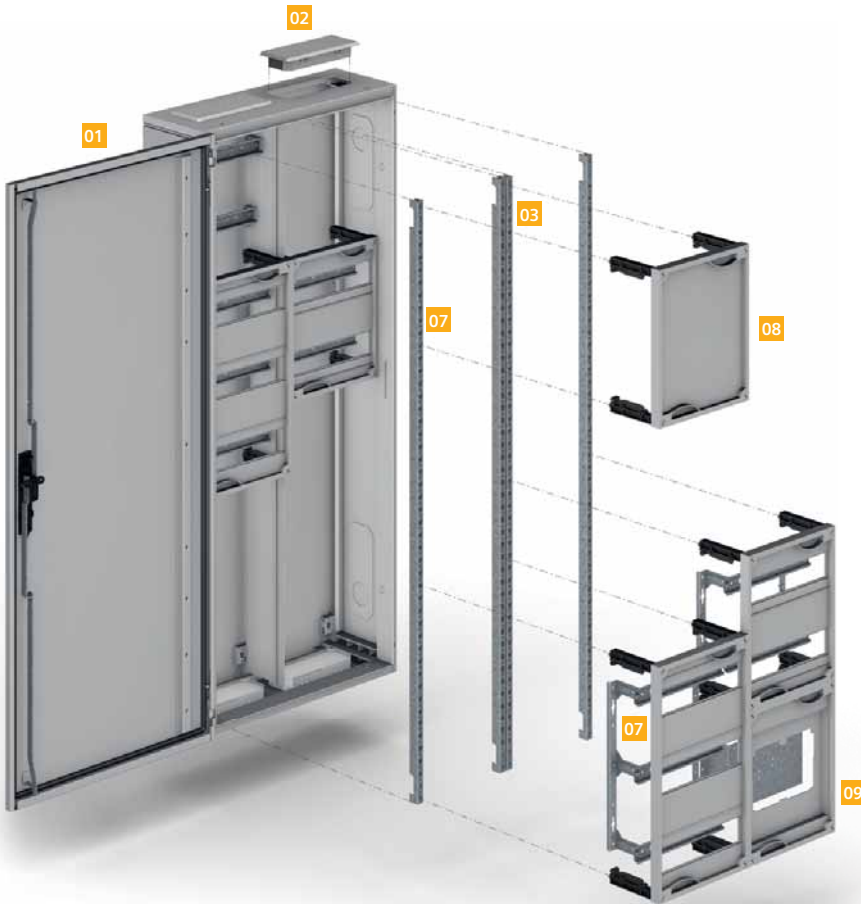
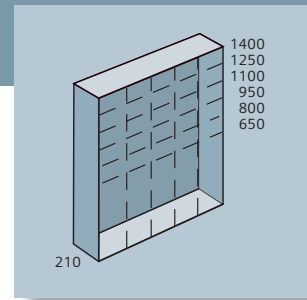
ALPHA 160



Legend for
ALPHA 160
ALPHA 400
ALPHA 630
ALPHA AS

- 01 Enclosure with door
- 02 Flange
- 03 Stays
- 04 Cross arm
- 05 Base
- 06 Quick assembly kit
- 07 Assembly kit for modular installation devices
- 08 Assembly kit for terminal blocks
- 09 Assembly kit for fuse switch disconnectors
- 10 Assembly kit for mounting plate
- 11 Assembly kit for unequipped panels
- 12 Assembly kit for busbar-adaptable equipment
- 13 Assembly kit for fuse switch disconnectors, in-line
- 14 Assembly kit for molded-case circuit breakers
- 15 Main busbar system
- 16 60 mm busbar system
- 17 PEN busbar

ALPHA 400



Assembly kits:



Built-in equipment:

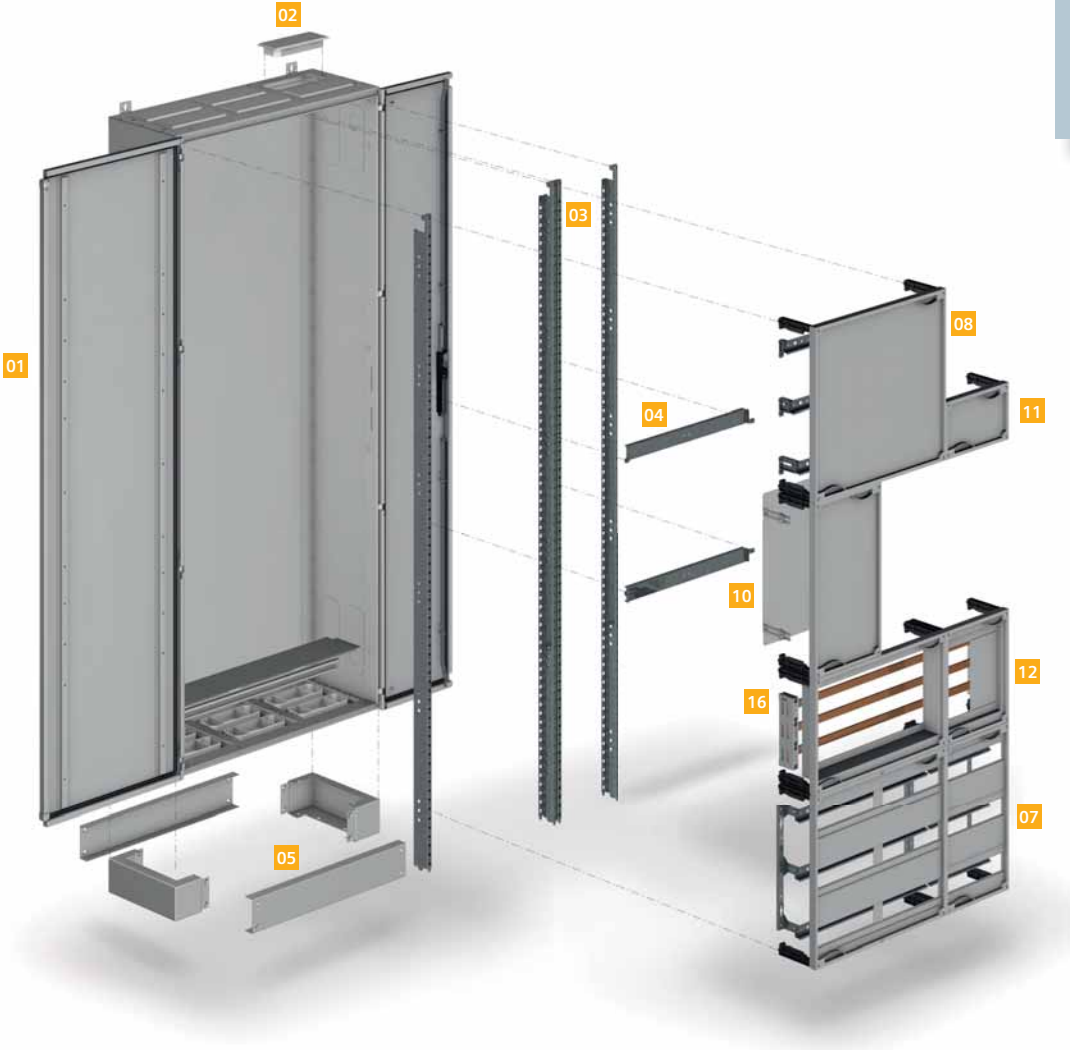
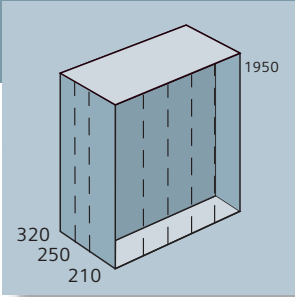


Screw terminal
8WH



Measuring instruments
7KM PAC

ALPHA 630



Indicator light
5TE5



FI circuit-breaker
5SM3



Circuit-breaker
5SL6



Circuit-breaker
5SY4

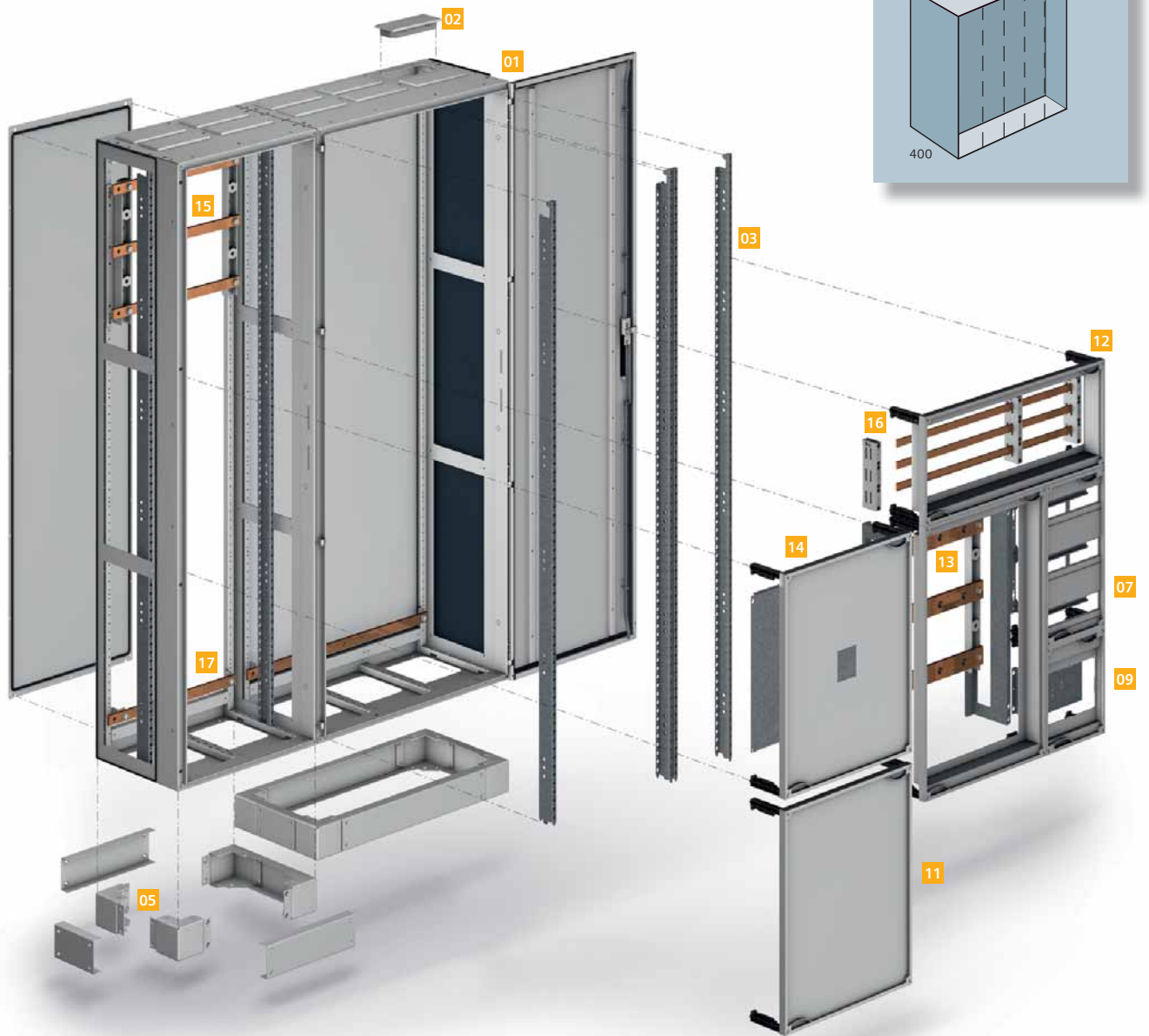
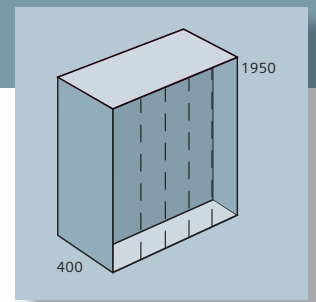


Fuse system
NEOZED



Fuse system
DIAZED

ALPHA AS



Fuse switch disconnector
3NP1



Compact circuit-breaker
3VL



Fuse switch disconnector
3NJ4



ALPHA SIMBOX small distribution board – compact and versatile

Space saving and flexible – small distribution boards for every project

The successful concept of the ALPHA SIMBOX small distribution board is based on functional, timelessly harmonious design and technical properties due to individual requirements. With its small mounting depth the ALPHA SIMBOX is ideally suited for applications as floor panel boards or sub-distribution boards in electrical installations for residential and non-residential buildings such as schools, commercial buildings and shops.

ALPHA SIMBOX small distribution boards – making things easier for you

The main priority of the ALPHA SIMBOX small distribution board is ease of installation. This starts with the installation-friendly cable inlet through which you feed the cable via a patented basset edge without having to cut out knockouts. You can also fit modular installation devices such as miniature circuit breakers or residual current protective devices on the standard mounting rails before installing the distribution board. Another advantage for installation and operation is the 180° door opening angle.



The ALPHA SIMBOX small distribution board can be used for all applications as floor or sub-distribution boards in residential or non-residential buildings, for example in:

- Detached houses
- Apartment buildings
- Schools
- Commercial buildings
- Shops





Form follows function – comfortable and adaptable

Functional design is the hallmark of the ALPHA SIMBOX small distribution board, regardless whether you use them as flush-mounting, hollow-wall or surface-mounting distribution boards. Another mark of their flexibility is the variety of available sizes: the distribution board can be ordered in 1- to 4-tier versions.

Any unevenness of the masonry can easily be compensated due to the raised cover frame.

The interaction between equipment racks and cover frames give the installer mounting flexibility of up to 22 mm with flush-mounting. A door lock can be used to protect against unauthorized access.

ALPHA SIMBOX WP – your expert start into the world of electromobility

A special feature with a future: The innovative SIMBOX WP small distribution board has a degree of protection of IP65, which makes it suitable even for outdoor installation. Equipped with the proven SENTRON protection, switching, measuring and monitoring devices it can easily be deployed for the electromobility charging infrastructure. The compact and ergonomic charging unit is particularly suitable for use in carports, garages, workshops, underground garages or multi-story car parks.

- Highlights**
- Comprehensive package for every installation situation
 - Ergonomic, functional enclosures for 1- to 4-tier installations
 - Ease of installation due to patented basset edge for cable entry
 - User-friendly thanks to 180° door opening angle



SIMBOX WP small distribution board with SENTRON protection, switching, measuring and monitoring devices as WB100A charging unit for safe charging of electric vehicles.

ALPHA FIX terminal blocks – guaranteed to fit

Highlights

- Complete series covering all connection technologies
- Fast, time-saving installation and user-friendly marking system
- Minimized logistic costs due to reduced warehousing

Versatile connection options

In addition to the screw terminals 8WH1 and 8WA1, the ALPHA FIX family also includes a complete range of screwless connection systems. These comprise 8WH2 terminal with spring-loaded connection, 8WH3 insulation displacement terminal, 8WH5 combination plug-in terminal and 8WH6 plug-in and installation terminals of type featuring in-Push-out (iPo) connection technology, as well as corresponding accessories. One feature all have in common is that they can be snapped onto the 35-mm DIN EN 60715 standard rail, and leave nothing to be desired when it comes to a well-arranged wiring. The global availability and international certifications marks the world of ALPHA FIX terminal blocks.

Standard marking system

With ALPHA FIX terminal blocks you can choose individually from all common connection technologies. A standard marking system is used for all ALPHA FIX terminal blocks. The labelling plates can be produced quickly and simply with our ALPHA FIX PRINT system.

Full range of accessories

The connection systems of the 8WH series can be combined together since they have the same accessories. That gives you a high degree of flexibility and simplifies planning and setting up of the switchgear cabinet.

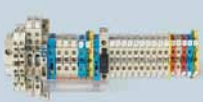














Terminal blocks are a space-saving way of connecting incoming and outgoing cables. They are used in application areas such as:

- Switchgear manufacture
- Control system manufacture
- Photovoltaic applications
- Traffic engineering
- Mechanical engineering
- Plant engineering





Connection method	Specific features	
WA1 Screw terminal	 	<p>The established screw terminal has double insulation and is closed on both sides. These terminals are extremely robust and can withstand severe mechanical stresses and high temperatures.</p>
8WH1 Screw terminal	 	<p>The screw terminal connection is a winning combination of compact design and optimum handling. The elastic deformability of the terminal body prevents the clamped wire slipping. Applications up to 1,000 V DC are possible.</p>
8WH2 Spring-loaded terminal	 	<p>With the spring-loaded system, the tension spring always applies constant pressure on the wire giving excellent contact security – even in vibration-sensitive applications.</p>
8WH6 In-Push-out (iPo) terminal	 	<p>The iPo connection technology combines the advantages of the spring-loaded and the plug-in connection. The rigid or flexible wire can be plugged in without the need for a tool. Only light plug-in force is needed for fast installation, but with high contact security.</p>
8WH5 Combination plug-in terminal	 	<p>The combination plug-in terminal is used where high availability is required in case of a fault. The contact system can withstand even extreme vibration stresses and both the terminal and plug are finger-touch safe.</p>
8WH3 Insulation displacement terminal	 	<p>Using the insulation displacement terminal saves the need to strip the wire insulation. It produces a secure contact between the conductor and the terminal connecting wire.</p>
ALPHA FIX PRINT		<p>For fast, easy and wipe-proof marking of ALPHA FIX terminal blocks.</p>

ALPHA 8HP molded-plastic distribution system – robust, safe and flexible

Systemized technology

The high-quality, robust concept of the molded-plastic distribution system ALPHA 8HP is particularly well suited for harsh ambient conditions. The modular design offers maximum flexibility for every application, and has been proven over many years. Another advantage is that everything is supplied from a single source. As provider of the complete package including enclosures and devices, we ensure that all components are perfectly matched.

Thanks to international certifications like Gost and UL standards the ALPHA 8HP molded-plastic distribution system can also be used in Russia or the USA.



Matched to your needs

The ALPHA 8HP molded-plastic distribution system is the perfect example of tailored performance. With five graduated construction sizes and a basic dimension of 307 mm, this system can be adapted flexibly to all requirements. The varied selection of assembly kits and accessories allows the combination of a wide range of devices. The modular support rack fits perfectly into the flexibility concept of the entire ALPHA 8HP system.



The system is ideal for use in many areas with corrosive and harsh environments:

- in industry and in the manufacturing sector
- in mining
- in power plants
- in public buildings such as airports, rail stations and hospitals
- in agriculture
- in administrative buildings, department stores and in residential buildings
- in photovoltaic applications



Thanks to the high-quality thermosetting plastic (glass fiber-reinforced polyester) used as material, the ALPHA 8HP molded-plastic distribution system is:

- resistant to oils and chemicals
- robust against mechanical influences
- flame retardant and self-extinguishing
- halogen-free
- temperature resistant
- resistant to many pollutants occurring at the place of use (MWC values)
- splash waterproof
- tested for major impact shocks such as earthquakes
- resistant to UV radiation



Robust and secure

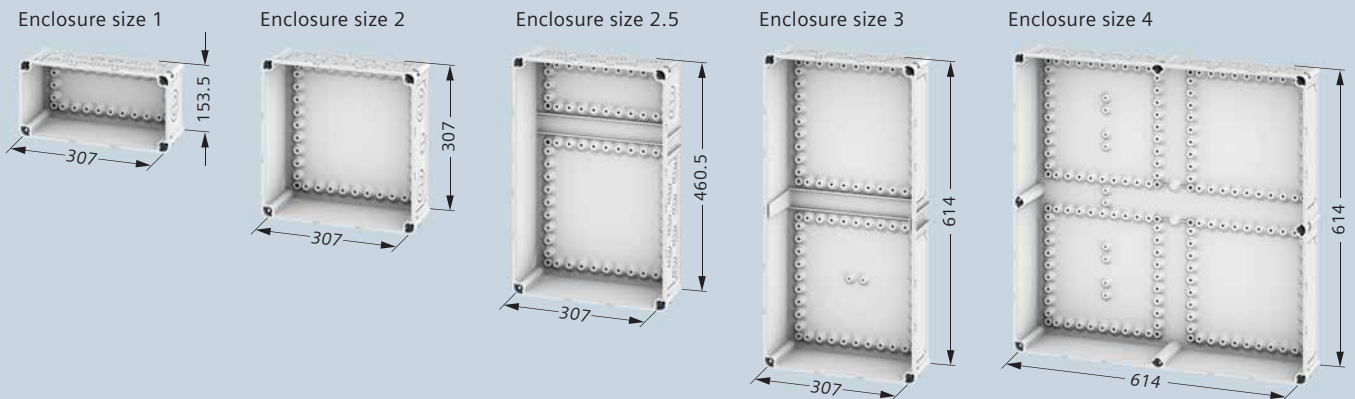
It is the combination of mechanical, electrical and design properties that make the ALPHA 8HP molded-plastic distribution system so attractive for your customers. The high degree of protection IP65 means that it is dust-proof and splash waterproof, and as such is ideally suited for use in damp and dusty environments. Resistance to corrosive atmospheres, pollutants, UV light and high ambient temperatures also qualifies it for use in areas where a special combination of reliability and security is required.

Protection in every direction

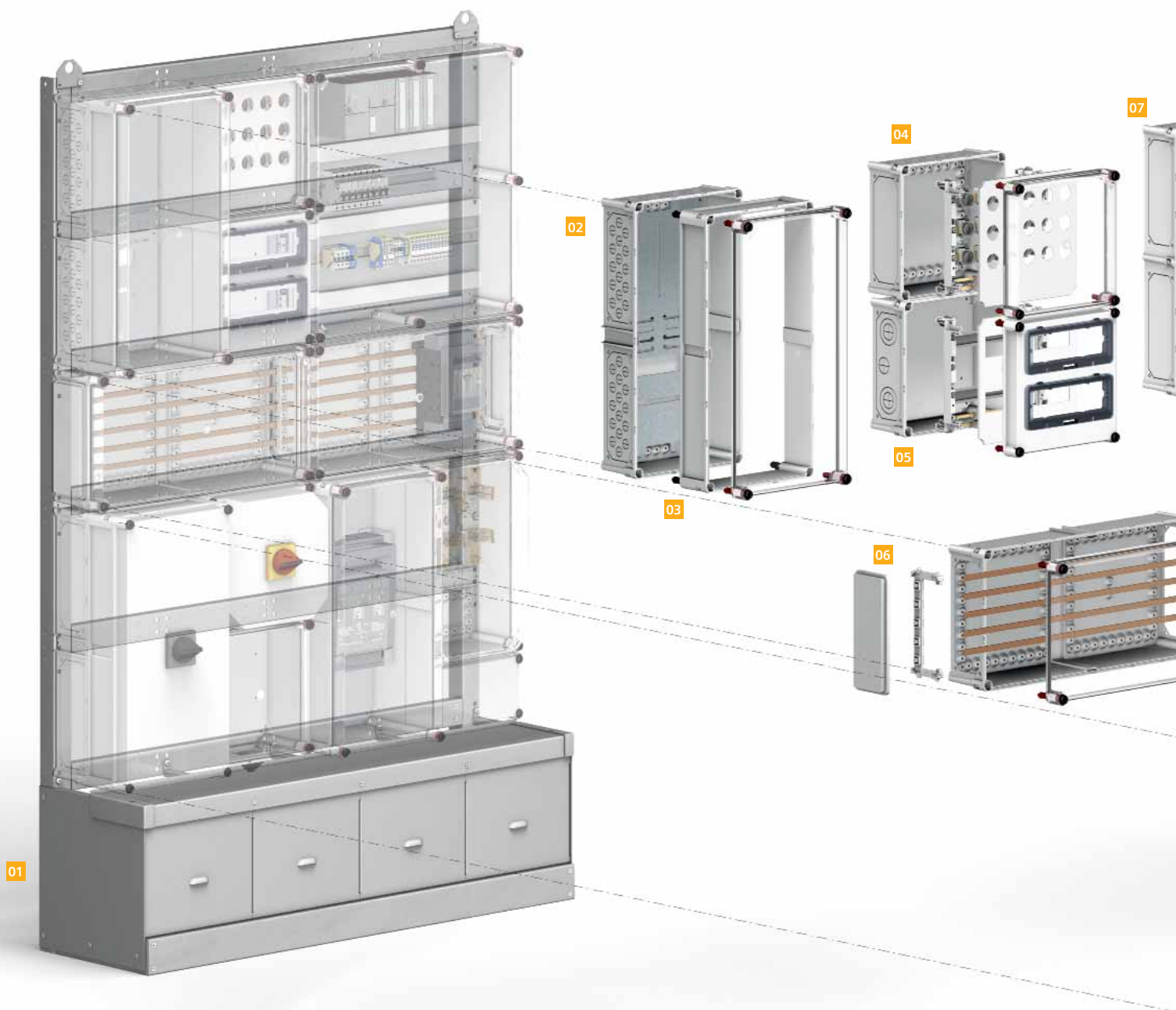
The extremely robust, mechanical design of the molded-plastic distribution system provides secure protection against mechanical stress. This security is a question of the right material: The ALPHA 8HP molded-plastic distribution system is made of a thermosetting plastic material Duroplast (glass fiber-reinforced polyester) that is not only tough and insulating, but also flame retardant and self-extinguishing in accordance with IEC 60707, UL 94 V0.

Highlights

- High degree of flexibility due to modular distribution board system
- Highly resistant to mechanical, thermal and chemical influences
- Degree of protection IP65 and high resistance to pollutants



ALPHA 8HP molded-plastic distribution system



- 01 Rack with cable space cover
- 02 Meter enclosure
- 03 Intermediate frame
- 04 NEOZED and DIAZED
- 05 Modular installation devices
- 06 8US busbar system
- 07 Enclosure with mounting plate
- 08 3VL molded-case circuit breaker
- 09 3NP1 fuse switch disconnecter
- 10 3LD main control and EMERGENCY-STOP switch
- 11 Cable entry flange
- 12 3NP1 fuse switch disconnecter
- 13 LV HRC fuse bases



ALPHA SELECT – fast, easy and user-friendly planning

Your program for all applications

ALPHA SELECT enables you to plan and configure the following products extremely quickly and easily:

- ALPHA SIMBOX small distribution boards
- ALPHA 400-ZS meter cabinets
- ALPHA distribution boards
- ALPHA 8HP molded-plastic distribution system

This free of charge software program comprises the complete electrical installation product portfolio and accompanies you step by step through your entire project, from planning to installation. Configuration errors are more or less eliminated by collision tests and configuration rules defined in the program.

You will find the software for downloading at www.siemens.com/alpha-select

User-friendly planning and configuration

ALPHA SELECT is a tool for assembling the specific distribution board for your needs. To do this, you first select the distribution board system. By selecting the required devices, the choice of distribution boards in the software system is suitably limited, especially regarding the depth. Then you define the relevant data such as protection class, degree of protection and dimensions, or in other words the specification of the distribution board. The next step is to place the assembly kits selected to match the devices, the devices themselves, and the accessory components graphically in the selected distribution board by dragging and dropping. Important accessory components are identified automatically.

Thanks to the graphical display of configuration and levels, such as covers, equipment racks or devices, you can maintain a perfect overview of everything. The levels can be individually hidden or displayed, so that you can view the built-in devices configured so far at any time.

ALPHA SELECT accompanies you step by step through your entire project

User-friendly planning and configuration

- Logical selection and specification of equipment and distribution boards
- Collision tests by means of defined configuration rules
- Easy graphic placement and clear displays
- Complete power loss calculation

Differentiated cost calculations

- Standard discount possible for each price group
- Individual discount per product possible
- Cost calculation options for individual items, installation, material, shipping and miscellaneous surcharges

Complete quotation delivery

- Detailed quotations for customers
- Printouts with project data, summary, design drawing and parts list
- Option for integrating the company logo



Transparent cost calculation

With ALPHA SELECT you can perform a cost calculation for standard discounts using the price groups or for individual product discounts. In addition, a comprehensive calculation is also possible with surcharges for installation, material and shipping, and you can also set any other discount or surcharge for every item in a project.

Easy preparation of quotations

You can also have parts lists, assembly drawing and configuration output to a data file or simply printed out, for example in order to send to your customer as a quote. ALPHA SELECT also allows you to use your company logo for quotations.

Highlights

- Convenient selection of cabinets via cabinet system, degree of protection, protection class and dimensions
- Easy placing of assembly kits and devices including automatic identification of important accessory components
- Differentiated cost calculation options, taking installation costs into account

Clear commissioning

- Easy ordering of the components needed
- Export option in standard formats, for example parts list and design drawing

Easy assembly in the workshop

- Visual orientation aid for constructing the distribution system
- Printout of a structured list of the planned distribution boards and components
- Printout of the drawings at the wanted levels



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