

Competence and know-how
E-T-A, your partner worldwide





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Working closely with our customers worldwide we seek the best solutions for their electrical protection and control requirements.

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Welcome to E-T-A!

For more than 60 years E-T-A Elektrotechnische Apparate GmbH, with its corporate headquarters in Altdorf near Nuremberg, has been successful in the global marketplace. Today E-T-A is market leader in the design and production of circuit breakers for equipment protection. In partnership with our customers it is our objective to provide solutions for even the most demanding challenges for electrical overcurrent protection.

We will design bespoke solutions for specific applications, supported by our international network of subsidiary

companies and representatives enabling us to be in close proximity to the customer at all times.

Working closely with our customers worldwide we seek the best solutions for their electrical protection and control requirements.





“ Our slogan
»Engineering Technology«
is underwritten by many
years of practical experience
encompassing a wide range
of industries. ”

E-T-A “Engineering Technology”

Our slogan, underwritten by many years of practical experience encompassing a wide range of industries, aptly describes our goal. The safety of our customers’ products and the people who rely on them is the focus of our endeavours. As the worldwide market leader in our field, we offer the most comprehensive range of products available for equipment protection to achieve the best possible solution for almost any need. Furthermore it is not our aim to supply products alone but to ensure that we can offer applications advice based upon sound knowledge and experience backed by our commitment to outstanding customer service. In combination with our customers’ expertise truly innovative solutions will be possible.

Strategy E-T-A 2016:

Shaping the future

E-T-A is a reliable partner. Consistent values and beliefs are the foundation of our business and ensure continuity of performance while our ability to respond quickly to new market requirements is delivering innovative ideas and products, now and for the future.

Our corporate strategy “E-T-A 2016: Shaping the future” is evidence of our commitment to remaining an independent group headquartered in Germany and with a global capability. Concentrating on our core competences, E-T-A will continue to be an innovative partner and technology leader for electronic, mechatronic and electro-mechanical products protecting equipment against the effects of overload and short circuit.

Far from serving only as component supplier, we offer a complete service. From planning to design and production, we can supply everything required for a total protection concept. It is our goal not merely to provide any solution, but the best solution, leaving our customers free to concentrate on their core activities.

Innovation

E-T-A is ready for the challenges ahead, continuously seeking to be a leader in innovative technology. We are recognised in the market for our trend-setting, internationally patented products: and this will not change in the future. Innovation will be at the forefront as our

interdepartmental product development teams focus on new design initiatives. Their work is complemented by our I & T Group (Innovation & Technology), which operates freely without constraint, to bring new ideas to the prototype stage. We also work closely with universities and research institutes, who support our development activity by striving for the best possible and imaginative use of cutting-edge technology.



Interdepartmental teams work together on new products.



The thermal-magnetic circuit breaker 4220-T and the electronic circuit protector ESX10 have been two of E-T-A’s major new developments during the past few years.

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We can be in close proximity to the customer at all times thanks to our worldwide sales network.

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E-T-A global sales network

A global presence on your doorstep

Just 7 years after forming the company, our founders Jakob Ellenberger and Harald A. Poensgen opened E-T-A's subsidiary in North America thereby laying the foundation for a growing and successful international enterprise.

Today E-T-A has a globe-spanning network in more than 60 countries with four production sites, ten E-T-A subsidiaries and a great number of representatives. We ensure greatest proximity to customers and reliable delivery everywhere in the world.

Benefiting from our German design heritage, our products are manufactured in our modern production facilities in Germany (Altdorf and Hohenfels), the USA, Tunisia and Indonesia. Our overall manufacturing output exceeds 15 million components and systems each year, providing our customers with world-class solutions for the optimum control of electrical power.

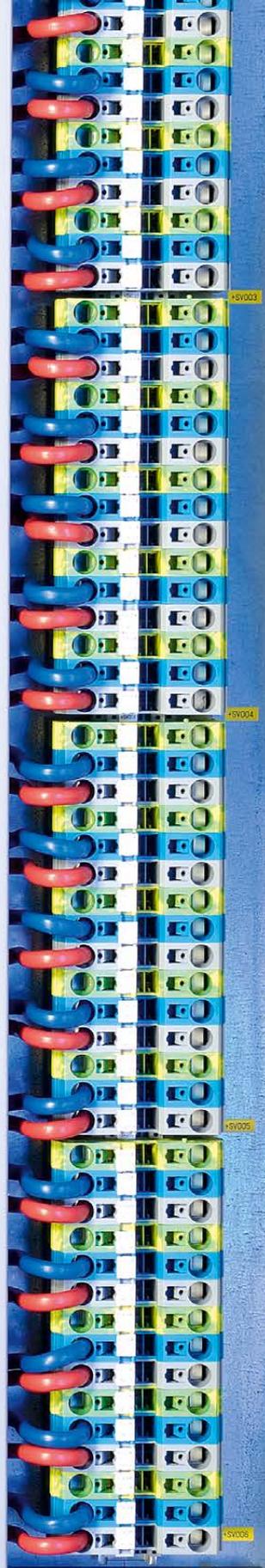
Reaching out around the world

Our sales network provides convenient and local access around the world to E-T-A products and services. Several of our subsidiaries, e.g. in North America, the United Kingdom and Japan, have been important members of the E-T-A Group for many years, even decades, and make an impressive contribution to our international reputation; and we are still growing.

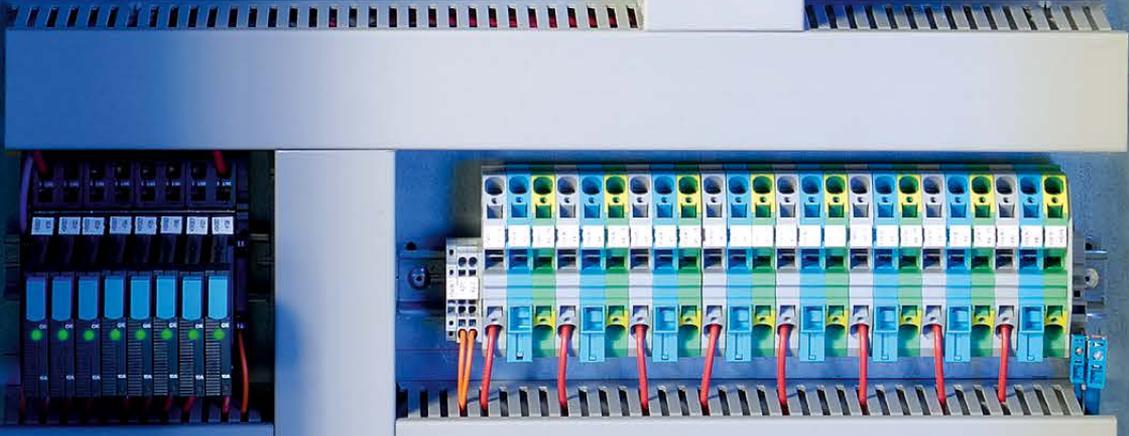
Proximity to our customers is an essential ingredient in our philosophy which is satisfied through the support of our representatives, with a deep knowledge of our products and their markets, working for E-T-A in many countries. Our global presence is at your disposal – any time and anywhere.



The first subsidiary abroad was E-T-A Circuit Breakers in Mount Prospect, USA, founded as early as 1955.



“ E-T-A, protecting your equipment ”



Your requirements – our solutions

For over 6 decades we have been building our reputation as a competent partner when it comes to complex electrical challenges. Our focus is the correct protection of equipment against electrical faults, with proper consideration both of technical and commercial objectives, to ensure solutions which are appropriate in all ways to the needs of the application.

E-T-A offers the most comprehensive range of products of their type worldwide, enabling us to offer our customers unparalleled choice - from thermal circuit breakers to complex power distribution systems – all from one expert supply source. Furthermore, if the customer specification cannot be met from our wealth of product types and options, we are ready to manufacture a tailor-made solution, exactly suited to the requirement.

Circuit breakers for equipment protection

Our product range includes thermal, magnetic, thermal-magnetic, hydraulic-magnetic and high performance circuit breakers. Different performance characteristics provide optimum protection for every application.

Control solutions

E-T-A battery isolation switches with remote control capability are especially suited to installation in the main battery systems of heavy duty vehicles, rail vehicles and watercraft. Also included in our product range are current and voltage monitors.

Our solid state remote power controllers and our smart power relays are electronic replacements for electro-mechanical switching and control components, designed for duties such as the reliable switching of magnetic valves in pneumatic or hydraulic equipment, for rail vehicles, as well as for cable protection in large plants.

Electronic overcurrent protection

Safety and productivity are essential criteria for modern machinery and automation systems. Our power distribution systems, fitted with electronic circuit breakers and protectors, reduce installation time, reliably disconnect faulty parts of the system and provide fast failure indication.

Power distribution systems

We supply entire solutions in systems technology, customised to the needs of specific applications and suitable for even the most complex installations.

We aim both to offer standardised and individual designs which combine ease of use with cost-effectiveness, whether for a one-off application or a series requirement.

E-T-A PowerPlex

PowerPlex is a decentralised, user configurable power distribution system based on CAN-Bus technology, optimised for small marine craft and special vehicles. Configuration is by means of our standard PC compatible software

which will satisfy all installation needs. PowerPlex provides switching, controlling and timer functionality, real load status indication, overcurrent protection and wire break detection. Each function is programmable to the requirements of individual load circuits. If the application requires the look and feel of a conventional control panel, this can be interfaced with PowerPlex to still take advantage of a modern digital processing system offering extensive diagnostic, monitoring and control functions.



Mark Boulton, RNLI (Royal National Lifeboat Institution, United Kingdom):

"E-T-A have ably demonstrated to the RNLI the simplification of electrical installation by using their new PowerPlex power distribution system. Following initial sea trials on an experimental RNLI lifeboat, this new system has performed extremely well".

Minimum space requirement combined with maximum safety – efficient 24V DC supply and selective protection in a confined space.

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Different markets – different requirements: E-T-A offers individual solutions

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Success across market sectors

Automation, communication and aerospace are just three of the many industry sectors where E-T-A solutions ensure the safe use of electrical power.

Our market-driven divisional structure ensures that our teams of design engineers, applications specialists and sales personnel have a thorough understanding of their own particular sector, enabling them to offer application-specific concepts which embody technical and economic benefits for the customer.

Automation

E-T-A circuit breakers for equipment protect, switch and monitor all types of loads in industrial automation, from individual machine tools to complete assembly lines. Local and centralised control technology in the process control industry, and field connection in power plants are both typical applications for our versatile DC 24 V or AC 230 V power distribution systems which help to optimise the design, installation, functionality and maintenance of the complete electrical system.

Automotive

For the protection of electrical loads in commercial and special vehicles, as well as passenger cars, we offer a wide range of products, including customer-specific components and systems, and joint developments. It is our goal to offer our customers the advantage of design, production and supply from a single source.

Watercraft

E-T-A has long been a specialist in the protection requirements for the electrical systems on board a variety of different types of marine craft. Our latest components provide state-of-the-art intelligent protection and control purpose-designed to the challenging needs of a marine environment, while the E-T-A PowerPlex system sets new standards in technology for this industry.

Household, hobby, garden equipment

Whether around the house, in the garden, or engaging in leisure pursuits – safety is a paramount concern. Manufacturers of equipment for these purposes will be seeking reliable components to protect their reputations and the safety of their customers. E-T-A is experienced in this field, offering products with international safety approvals and the performance required for dependable operation in a wide range of circumstances.



Heinz Kneipp, Daimler AG:

"For many years we have optionally been fitting Daimler's commercial vehicles with E-T-A circuit breaker types 1170/1176. Thus our customers are able to choose between low-cost parts or high (vehicle) availability. At the same time the use of circuit breakers obviates the search for replacements of blown fuses."



Ludwig Moons, Bayer MaterialScience, Bayer Antwerpen NV:

"We selectively protect very sensitive loads such as controls and sensors with the type ESS20 electronic circuit breaker. Physical isolation and the small width of only 12.5mm are only two of the many features which made us choose this product"



Thomas Richter, Nokia Siemens Network GmbH & Co. KG:

"We rely on the high performance power distribution rail X8345-D01 with a maximum total current of 600 A, in combination with E-T-A circuit breakers type 8345 with a maximum current rating of 125 A per way"

E-T-A products provide protection, switching and power management for uses across industry – whether individual equipment or entire plants.



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Everything must be fit for purpose, whenever it is required.

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Communication

Cellular telephone networks, internet access, transmission and switching technology: E-T-A supplies products ideally suited to each of these needs, as well as for the other protection requirements of the ICT sector.

Aerospace

Few, if any, other markets have more demanding standards for safety and reliability than the aerospace industry. Our well-proven high performance circuit breakers protect the wiring and the loads in all types of aircraft. In partnership with our customers we can also customise existing and new products, from components to distribution units.

We aim to provide innovative solutions to reduce weight and cost, which at the same time will assure absolute safety and reliability for an industry whose needs are uncompromising.

Environmental technology

Renewable energy and environmentally-friendly waste management plants are becoming ever more essential. E-T-A has the expertise to work in partnership with

our customers on advanced technology solutions for overcurrent protection in the field of photovoltaics, wind farms, sewage and water treatment plants, and waste combustion.

Professional tools

Electrically powered professional tools and equipment demand high reliability, endurance and safety – all of which will benefit from the use of E-T-A protection. The range of our product offering enables us to provide a solution for almost every requirement.

Medical equipment

E-T-A products are well suited to the special needs of the medical market, such as diagnostic and treatment equipment, instrumentation, and patient aids where down-time can literally have life or death consequences.



Dirk Müller, Airbus Germany:

"One of the products used in our aircraft is the E-T-A circuit breaker type 583. Threadneck mounting, temperature compensation and high rupture capacity allow its application even under extremely harsh conditions in an aircraft".



Sönke Faber, Draeger Medical AG & Co. KG:

"Its compact but reliable design makes the circuit breaker type 3120 ideally suited to use in our anaesthetics equipment. The combination of thermal circuit breaker and ON/OFF switch helps us to save space".



Heinz Hofmann, FLUX-GERÄTE GMBH:

"Due to its miniaturised design the thermal circuit breaker type 104 can be fitted into even our most compact drum pumps".

Optimum protection with minimum space requirements are essential to the communications industry.



ETA®

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Innovation and superior quality products are fundamental to our success.

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Quality and environmental management

Innovation and the quality of our products and service are essential to our continued success.

Our quality management system has been accredited to ISO 9001 providing our customers worldwide with the assurance that we are committed to consistently achieving only the highest standards of product reliability and customer satisfaction. The addition of approvals such as EN 9100 (aerospace) and ISO/TS 16949 (automotive) are further demonstrations of our competence. Our in-house tooling and production engineering departments help us to achieve our high standards of design quality, while computer aided consistency from design to production ensures that our ideals become a reality.

E-T-A strictly applies a zero-defect regime and defines quality as the reliable fulfilment of customers' requirements. Responsibility for achieving and maintaining our quality standards is shared by each and every employee of the company, underpinned by our training and development programme.

Environmental protection is also a shared responsibility throughout the E-T-A organisation. Many factors have driven our market-leading crusade: a wealth of ideas, know how, reliability, the high motivation of our staff and, what is more, a strong ecological awareness. A proactive approach to the protection of the environment has always been one of E-T-A's key objectives. The effectiveness of this approach has been demonstrated by experience. We are proud that individuals at every level in the business have fully embraced the concept that environmental protection is a matter for them as well as for the company.

Independent accreditation

E-T-A's corporate test laboratory has been accredited in accordance with DIN EN ISO/IEC 17025 Test Laboratories and has also received a Certificate of Qualification from UL. We are therefore competent to issue Declarations of Conformity and to carry out approval tests on products of our own manufacture as well as from third party sources.



E-T-A's corporate test laboratory is accredited to qualify products in-house



E-T-A relies upon a combination of advanced automated assembly methods and manual dexterity in its production, depending upon volume



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Commitment to success –
in every department

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Customer focus – from purchasing to delivery

As market leader in the field of circuit breakers for equipment protection, it is vital we work closely with suppliers who are innovative and dependable. If we are to deliver customer orders on time we must ensure on-time supply of raw material, sub-assemblies and parts for all our manufacturing facilities. Customer satisfaction is the basis for all our endeavours – not least in purchasing. We must be able to guarantee adherence to our quality standards and we work in co-operation with our suppliers to achieve this. We strive for deep and long-standing mutually beneficial relationships which will contribute to optimum cost-effectiveness through quality and efficiency.

E-T-A both purchases and supplies a very wide range of merchandise and services. Manufacture of our products requires raw material, sub-assemblies, hardware, and even complete assembly lines; while a host of service providers help to support our infrastructure and business activities. Our needs may differ

in number and frequency, but our quality expectations are high and consistent, requiring great care in our supplier selection.

We operate a vendor evaluation programme with a 'Supplier of the Year Award' for the company with the best performance based upon quality, logistics, technology and price-performance metrics. By this means we acknowledge the contribution made by that particular supplier and we aim to inspire others to emulate their success.

Efficient logistics - matched to market demand

From goods incoming inspection of bought-in parts to final shipment of our product to the customer, our processes have been designed to support our quest for total customer satisfaction. Management of our inventory, stocktaking and distribution of material within our Altdorf headquarters make full use of the latest technology. Trained personnel oversee the efficient transition of material

from incoming inspection, through quality assurance and onwards to the relevant manufacturing location. Furthermore they ensure that finished goods are despatched to our customers around the world, without any delays.



Our Purchasing Department manages our relationships with best-in-class suppliers



Shipping procedures are facilitated by ultramodern handling systems

The logistics centre at Altdorf has been designed for the most efficient storage of stock



E-T-A[®]
ENGINEERING TECHNOLOGY

Überstromschutz - Stromverteilung - Systemlösung. Aus einer Hand.
Overcurrent protection - power distribution - system solutions. One Expert.

Überstromschutz - Stromverteilung - Systemlösung
Overcurrent protection - power distribution - system solutions

E-T-A

E-T-A Lösungen Absicherung und Stromverteilung
E-T-A Solutions Protection and Power Distribution

Produkt	Leistungen	Kundenvorteile
<ul style="list-style-type: none"> • • • 	<ul style="list-style-type: none"> • • • 	<ul style="list-style-type: none"> • • •

E-T-A

ULTIMATE IN COOLING CONVENIENCE

PENTAIR

INDOOR, OUTDOOR, EVERYWHERE - LEADING EQUIPMENT PROTECTION

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At exhibitions, engineering technology gets tangible.«

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Exhibiting at major trade shows around the globe

E-T-A has a huge, globe-spanning sales team to attend to our customers locally. This ensures perfect and real-world customer service regarding our comprehensive product range. In addition, E-T-A offers still another opportunity for customers and prospects to become familiar with the entire range of protection solutions and power distribution designs: the E-T-A exhibition booth.

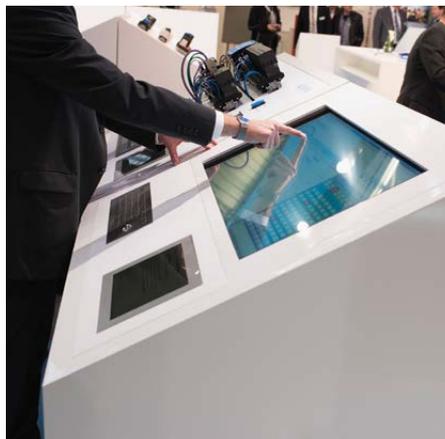
E-T-A attends up to 20 trade shows annually with a great number of products and new developments. The exhibition booth offers the opportunity to present both well-proven and brandnew solutions to interested visitors from all kinds of industries. These cover the most different applications including automation technology, watercraft, chemical industry, telecommunications and many more.

The open and inviting design of the E-T-A booth attracts visitors to discover our balanced combination of classic product presentation and ultramodern interactive exhibition models. It clearly

and comprehensively illuminates the advantages of E-T-A products. And it's all presented by highly competent E-T-A product experts.

You are welcome to take this opportunity to learn more and obtain first-hand knowledge about E-T-A's innovative solutions which meet your requirements regarding power distribution and protection professionally, permanently and cost-effectively.

If you want to know at which major trade shows we will exhibit this year, please click on www.e-t-a.de/fair to obtain quick and easy information about our plans. We are looking forward to welcome you at our booth.



Vivid product presentations and a great number of visitors: The E-T-A exhibition booth



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Looking for a new career direction?
Please get in touch.

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Enabling you to reach for new horizons

We are well aware that our continuing success depends upon the dedication of all our employees. We offer attractive working conditions with a flat hierarchical structure. We look for energy, drive and enthusiasm and place a heavy emphasis on open-mindedness. Our working environment is characterised by individual responsibility, trust, and mutual respect.

We expect our employees to be market- and customer-oriented, to have a pioneering spirit, and to have the courage to break new ground and show intercultural openness.

Opportunities at E-T-A

● with professional experience

Do you have a successful career record and are looking for a change? Do you think entrepreneurially and act responsibly and proactively? Our future growth requires team players who will be able to successfully cooperate in a wider context, crossing departments and cultures, and who are interested in continuously extending their knowledge.

● with a university degree

A job opportunity tailored to your needs: we are seeking applicants with qualifications which will support us to succeed in our growth ambitions. From your first day at E-T-A you will be encouraged to take on responsibility for your own projects, and will quickly enhance your knowledge and expertise.

● while still a student

E-T-A can offer you a taste of practical work while you are still a student. Either through an industrial placement or while writing your final paper – you will have the opportunity to put theories into practice and at the same time get to know our company.

● with a school leaving certificate

Have you finished your school education and want to start your professional career? We offer a range of future-oriented apprenticeships for four different vocational disciplines. These provide a solid foundation

for a promising professional career as an electronics technician for components and systems; an industrial clerk; a tool mechanic; or within the scope of extra-occupational studies with electrical engineering as the theme.

The first steps

A well-planned initial skills introduction, tailored to individual needs, provides an ideal opportunity for newcomers to become acquainted with the company, to meet their colleagues and to learn about their tasks.

The on-going personal development of our employees is as important to us as their initial selection. We support our top performers and help them to improve their skills. Our preference is to promote from within.



Stefan Hötzel, Master of Science, Junior Product Manager, Equipment Division:

»I always wanted to work at the interface between sales and design and this is exactly what I'm doing now. As a medium-sized family-owned business, E-T-A offers me, as a rookie, the opportunity to take over responsibility at an early stage and to develop personally and professionally in a great working climate.«



Ulrich Gonsior, Production Manager for Transportation Products:

»I've been working for E-T-A for more than 29 years. From the beginning, a good working atmosphere and dealing fairly with each other were important to me. In addition, E-T-A allows me to work autonomously, offering me a very interesting task including staff responsibility.«



Daniela Lipperer, International Customer Service:

»After completion of my training at E-T-A I was employed in my favourite department, in 'Sales'. Work there is very international and diversified. A very familiar working climate and flexible working hours helped that I still very much enjoy working for E-T-A.«



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E-T-A's management objectives are committed to maintaining a balance between the interests of our customers, our shareholders and our staff.

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From start-up to global player

E-T-A is the world market leader for circuit breakers for equipment protection, generating a triple-digit-million revenue with approx. 1300 employees, four factories and many subsidiaries and sales offices around the globe. It is hard to believe that E-T-A was founded by Jakob Ellenberger and Harald A. Poensgen on a handshake.

The company began life in 1948 with 23 employees in a small building in Altdorf. The product range at that time comprised automatic circuit breakers and production capacity was around 50,000 devices.

In 1953 the company launched its pioneering range of circuit breakers for equipment protection which still remain our core competence today, driven by an ambitious programme of new product introductions and enhancements. Annual production output now exceeds 15 million devices in a vast variety of types and configurations.

A privately owned business with a proud tradition

Only 7 years after the foundation of the company, E-T-A opened its first subsidiary in the USA and has been continuously growing ever since. As many more production sites and subsidiaries were opened during the 1970s and 80s, the founders began gradually handing over responsibility for the business to the next generation.

E-T-A is an internationally operating company, but nevertheless remains a privately owned family business. Director Dr. Clifford Sell is supported by six other

members of the Executive Committee: Ralf Dietrich, Manfred Kiefl, Christian Kube, Dr. Jennifer Sell, Hans A. Thiel and Gabriele Zange.

Values such as mutual respect, trust, openness and a sense of belonging have been part of our culture since the start and still are. They have made E-T-A what it is today: **a reliable and innovative partner for our customers all over the world.**



The founders of the company, Jakob Ellenberger and Harald A. Poensgen

E-T-A

Worldwide Service Network



Europe

- Austria
- Belgium
- Bosnia-Herzegovina
- Bulgaria
- Croatia
- Czech Republic
- Denmark
- Finland
- France
- Germany
- Hungary
- Ireland
- Italy
- Luxembourg
- Macedonia
- Montenegro
- Netherlands
- Norway
- Poland
- Portugal
- Russia
- Serbia
- Slovakian Republic
- Slovenia
- Spain
- Sweden
- Switzerland
- Turkey
- United Kingdom

America

- Argentina
- Brazil
- Canada
- Chile
- Mexico
- USA

Asia

- Brunei
- China
- Hong Kong
- India
- Indonesia
- Japan
- Korea
- Malaysia
- Philippines
- Singapore
- Taiwan
- Thailand

Africa

- South Africa
- Tunisia

Oceania

- Australia
- New Zealand



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