

E-T-A Consumer Safety for everyone.





E-T-A: Safety first.



For over five decades the E-T-A registered mark has been recognised as a symbol of safety and reliability throughout the field of equipment protection. With headquarters in Altdorf, Germany, E-T-A is an international group of companies and a world leader in the design, development and manufacture of circuit breakers for the protection of components, equipment and systems against the potentially catastrophic effects of electrical overload and short circuits. Today the E-T-A product range is one of the widest available with a solution for almost every application.

Research and development.

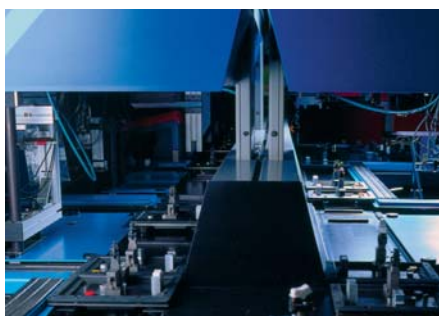
As a privately owned group, we are committed to maintaining a high level of research and development investment to ensure we remain at the forefront of circuit protection technology. E-T-A has over 1400 highly qualified personnel worldwide with 150 in research and development alone. Our products combine innovative, leading-edge designs with proven low cost of ownership, and exceptional safety and reliability. They are fully approved by internationally respected authorities including VDE, UL and CSA.

In addition to our own R & D activity we work closely with universities and are funding several advanced technology programmes addressing industry's needs for tomorrow.

Advanced manufacturing.

Our modern, award-winning manufacturing plants in Germany are highly automated and accredited to ISO 9001:2001. Quality is assured from design through development and every production process by advanced methodologies such as FMEA (Failure Mode Effect Analysis) and SPC (Statistical Process Control).

Our commitment to environmental protection and conservation of natural resources has been widely acclaimed and is a high priority throughout the E-T-A organisation, including our other manufacturing sites in the USA, Tunisia and Indonesia.





Consumer market activity.

E-T-A's network of subsidiary companies and representatives provides sales and support in over 50 countries around the world. Product specialists will assist in the selection of the correct solution for your application. Whether you require individual circuit breakers, a complete system solution, sensors or control devices you will be able to specify E-T-A products confident in the knowledge you will not be disappointed.

E-T-A specialises in circuit breakers for equipment protection and electronic protection solutions across many different sectors of industry. Our business is structured around our core competencies. Operating globally our business field managers and their teams, who are experts in their individual fields, are available to provide specialised applications advice to our customers wherever they are.

From the protection of household appliances and white goods, to hobby and garden tools, lighting and installation technology, E-T-A can offer the optimum solution. Circuit breakers and door lock relays installed a million times over have the confidence of major international groups as well as of many other users in every sector of the consumer industry. You can therefore be certain you can rely on E-T-A products.





Safety for your products.



For more than five decades E-T-A has been a reliable partner for the electrical appliances industry. For household appliances, hobby and garden tools E-T-A provides a choice of solutions offering additional safety. As the worldwide market leader for circuit breakers for equipment, we are confident we will be able to provide you with a suitable solution for your application.

The need for unique products with a competitive edge has never been greater. To satisfy this demand E-T-A offers a wide range of solutions which can be tailor-made to your needs. With attractive styling and design, our products offer optimised functionality and unrivalled performance, quality, service and price. You can be certain that E-T-A supplies superior products to ensure the safety and reliability of your equipment at the same time as meeting the demands of your industry and market.



Frequently our products form the basis of an intelligent solution. They may be supplemented by a number of practical features to increase safety, reliability and cost-effectiveness. Add-ons such as water splash covers, illumination, actuator guards to prevent inadvertent operation, and low voltage release modules are only some examples which can reduce the number of single components needed, cut mounting and wiring time and minimise cost.





E-T-A solutions for your customers.

Innovation is fundamental to long term success. As a competent partner to the white goods industry E-T-A supplies a wide range of innovative door lock relays and electronic solutions for washing machines, electric cookers, microwave ovens and many other household appliances.

These devices may be customised to the specific requirements of the white goods industry. Moreover we have expert personnel dealing specially with the needs of our customers in this market and together already addressing the challenges of the future.

Our qualified sales team offer true added value as a vital interface between our customers and our development engineers, to support you in your daily business activities. They will help you to translate specific questions and requirements into tailor-made solutions in the shortest possible time.

Supporting this activity is a dedicated team of development engineers working on circuit breakers, control products and mechatronic solutions. They are able to call upon our extensive corporate resources including our test laboratory, prototype production, and equipment assembly all of which make a significant contribution to the development of innovative new products.

All development activity is carried out in-house with the aid of the latest CAD, CAE and CAM technology. The benefit to our customers is a co-ordinated programme from start to finish resulting in superior, cost effective products, and short development cycles.

The segmentation of our production capabilities enables us to respond rapidly to specific requirements and contributes to our commitment to remaining at the forefront of our industry.





E-T-A products for applications in the Consumer Sector.

Rocker switch/circuit breaker type 3120

Attractive styling,
well-proven-design.



The ideal solution for many applications, in a single compact device: the single pole or double pole rocker actuated circuit breaker type 3120 reliably protects household appliances, hobby and garden tools against overcurrent, offering both switching and protection functions. Various colour combinations are available as well as rocker illumination and water splash protection.

Voltage rating:

AC 240 V, 50/60 Hz
DC 50 V

Current rating range:

0.1 ... 20A per pole
(max. 16A double pole)

Typical applications:

- household appliances and gardening tools
- high pressure cleaners
- electrical tools

Rocker switch/circuit breaker type 3120 with undervoltage release module

Protection against inadvertent
start-up.



Following a power failure electrical appliances must be prevented from re-starting automatically upon restoration of the supply, to avoid danger both to operators and machines. The single or double pole circuit breaker type 3120 with undervoltage release module combines switching and protective functions with effective start-up protection, to satisfy this important need.

Voltage rating:

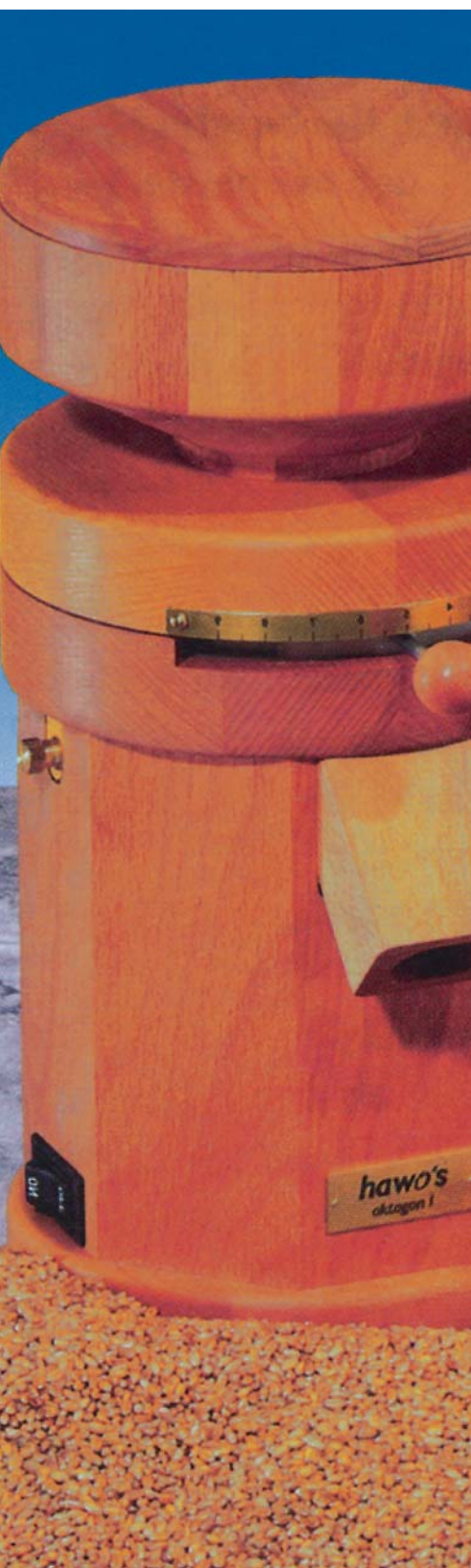
AC 240 V, 50/60 Hz
DC 65 V

Current rating range:

0.1 ... 20A per pole
(max. 16A double pole)

Typical applications:

- saws
- centrifuges
- garden shredders





Type 1110

Reliable protection – compact size.

The single pole circuit breaker type 1110 provides reliable protection where space is at a premium. Featuring miniaturised dimensions with maximum performance, it is positively trip-free, has an integral switching function and fits into standard fuse holder panel cut-outs. Type 1110 is a safe choice for many applications as it offers all the advantages of a full-feature circuit breaker: resettability, long life, snap action contacts.



Voltage rating:

AC 250 V, 50/60 Hz

DC 28 V

Current rating range:

0.1 ... 20 A

Typical applications:

- household appliances
- electrical tools
- mains transformers





Rocker actuated type 1410-F
Fast acting for maximum safety.



If you require a circuit breaker with a fast trip curve, reliably protecting your equipment against overcurrent and short circuit, type 1410-F with optional rocker illumination is the perfect solution. We have created a range of trip curves to ensure fast protection for a choice of current ratings.

Voltage rating:

AC 240 V, 50/60 Hz
DC 28 V

Current rating range:

0.63A ... 10 A

Typical applications:

- electrically powered vacuum cleaner nozzle heads
- household appliances

Circuit breaker type 1410-G
Fast, safe and cost-effective.



The advantages of the push button operated type 1410-G are manifold, its speed of operation being the most significant. Type 1410-G trips up to ten times faster than any other conventional circuit breaker - an important feature for many applications. Other benefits include: soldering pins for pcb mounting and compact size.

Voltage rating:

AC 240 V, 50/60 Hz
DC 28 V

Current rating range:

0.63A ... 10 A

Typical applications:

- electronic printed circuit boards
- loudspeakers
- motors





Type 1658

Cost-effective and reliable.

The performance, size and weight of the E-T-A circuit breaker type 1658, combined with its low cost, provide a versatile solution for many different applications. The reliability of its design has been well proven ensuring true fit-and-forget operation.

Voltage rating:

AC 240 V, 50/60 Hz

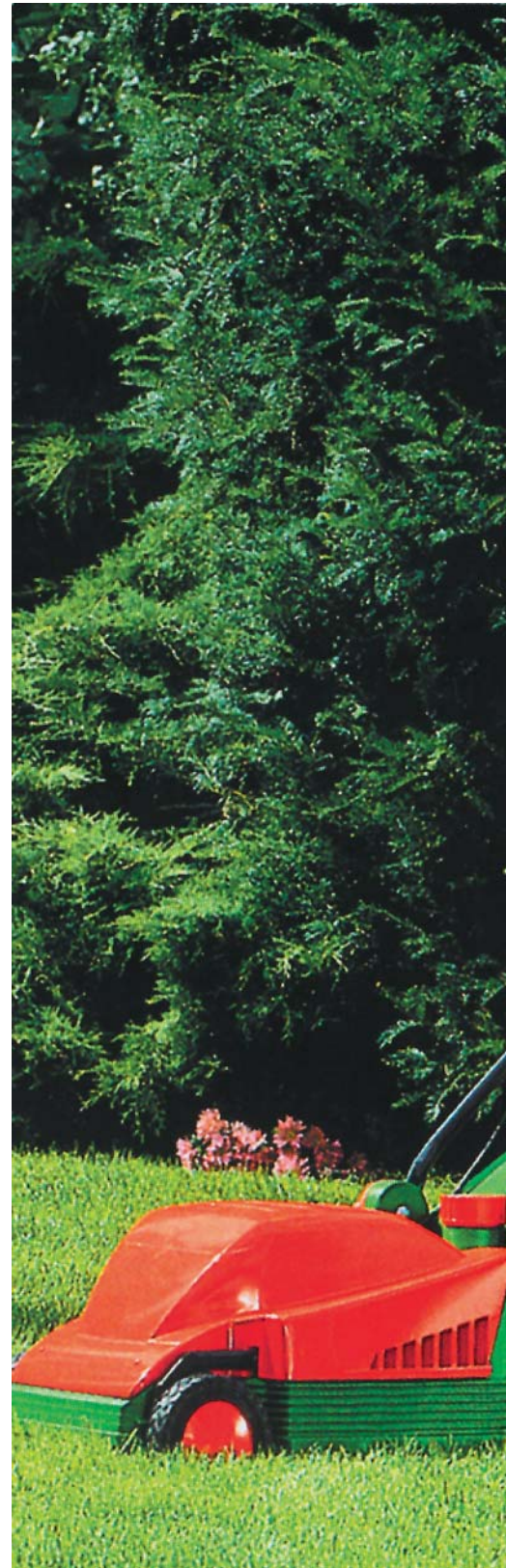
DC 28 V

Current rating range:

5 ... 30 A

Typical applications:

- battery chargers
- power supplies
- household appliances





**Door lock relay type 6110
for washing machines**
Unrivalled performance,
robust design.



The thermal door lock relay type 6110 for washing machines is a tried and tested product for reliably locking and unlocking many types of washing machine. In the event of a power failure it provides mechanical unlocking which will still enable the door to be opened. The tamper-proof mechanism provides added safety, for example by protecting children from being shut into the machine. Standard RAST 5 terminals offer ease of installation and reduce wiring time. Several circuit configurations extend the versatility of this product series.

Excitation voltage ratings:
AC 110 ... 230 V (50/60 Hz)

Locking force:
F1 \geq 400 N
F3 \leq 200 N

Typical life:
5000 cycles at rated current

**Door lock relay type 6140
for ovens with pyrolytic
cleaning facility**
- to keep heat at
a safe distance.



The compact size of the door lock relay type 6140 for pyrolytic ovens makes it an ideal choice for many types of cooker, facilitating its installation in the smallest spaces, even a recess in the air duct. As the system is bi-stable it will continue to operate correctly in the event of a power failure, i.e. the door of the oven cannot be opened during the cleaning process. The integral contact system recognises whether the door is open or closed. Type 6140 is VDE and UL certified and is therefore especially suited to applications for the international market.

Excitation voltage ratings:
AC 120 ... 400 V (50/60 Hz)

Locking force:
 \geq 100 N
Other values upon request

Typical life:
electrically:
6000 cycles at rated current

mechanically:
100,000 operations





**Current protector type
E-1078-4.2 for low voltage
halogen lighting systems**
Spot on safety.



Modern lighting systems offer impressive design and performance. Safety is enhanced through use of the E-T-A current protector E-1078-4.2 for low voltage halogen lighting systems. Fire hazard as a result of overcurrent, short circuit or overheating of the connections is eliminated. The system can be re-set by turning the light switch off and on, and is suitable for use with dimmers.

Voltage rating:
AC 230 V $\pm 10\%$, 50 Hz
AC 120 V $\pm 10\%$, 60 Hz

Lamp load:
60...300 W
100...300 W
100...400 W
300...600 W

Interrupting capacity:
relay contact 8 A

Typical applications:
● low voltage halogen lighting systems

**Combi Safety Protection
E-1078-911**
Simultaneous operation of two
powerful appliances.



The need to connect two powerful appliances on the same circuit can present a problem, especially in older properties. The E-T-A combi safety protector type E-1078-911 provides a neat solution and avoids the need for expensive rewiring work.

Voltage rating:
AC 230 V 50 Hz

Supply current:
16 A

Typical applications:
simultaneous connection of two large household appliances at a 16A circuit, e.g.
● washing machine with dryer
● dish washer with heater



E-T-A Elektrotechnische Apparate GmbH: Worldwide Service Network.

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- Canada
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- USA

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- China
- Hong Kong

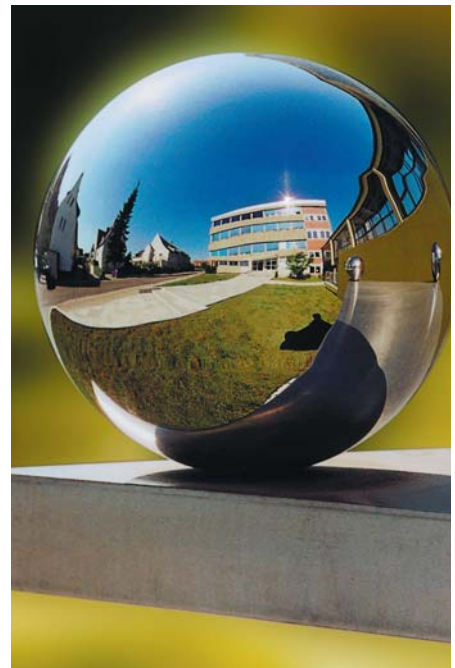
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