

DIZ Doepke-Info-Zeitung

The free customer newsletter by Doepke Schaltgeräte GmbH



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Forward-looking decision

Doepke takes over production of miniature circuit-breakers from ABL SURSUM

An exciting phase is approaching for Doepke and ABL SURSUM, as the managing directors of both companies have entered into an important agreement for both companies that is the currently the talk of the town on the market.

While ABL, a strong partner for trade, the automotive industry and energy providers, wants to focus on the growth of electromobility in the future, Doepke is to further develop its core field of ‘using electricity safely’.

For that reason, Doepke is taking over the production of miniature circuit-breakers from ABL. The company, based in Lauf near Nuremberg, is to completely cease producing

and selling miniature circuit-breakers in 2019 to free up resources for the production of efficient solutions for charging infrastructure, plug and socket outlets, combinations and caravan components. ABL employees will see changes to some parts of their work, but all jobs will be retained.

For Doepke, the decision will even lead to growth in staff numbers, as the aim is to transfer the production of miniature circuit-breakers to its own sites. Doepke and ABL are working closely together to make the transition as smooth as possible for their customers. They can rest assured that the products they need will be fully available at all times. ■



Andreas Müller, Managing Director of Doepke

STANDARDISATION

DIN VDE 0100-410:2018-10

Construction of low-voltage installations – protection against electric shock

What has changed in the revised standard, published in October 2018, regarding the use of residual current devices (RCD) compared with the previous version from 2007?

Switching devices that are used to implement the 'automatic disconnection of supply' protective measure must have disconnection properties. This requirement is met, for example, by residual current circuit-breakers (RCCBs) and residual current operated circuit-breakers with integral overcurrent protection (RCBOs).

Sockets in final circuits up to 32 A that are intended for use by laypersons and for general usage and final circuits up to 32 A for supplying fixed-connection portable equipment for outdoor use must be protected using residual current devices with a rated residual current of ≤ 30 mA (formerly the requirement was only for final circuits up to 20 A).

The lighting circuits of a TN or TT system in domestic buildings must also be protected by a residual current device with a rated residual current of ≤ 30 mA. This requirement applies to domestic buildings but is not compulsory for industrial applications.

With regard to automatic shutdowns in the event of a fault, the switch-off times now also apply to final circuits with sockets with a rated current up to and including 63 A (formerly only up to 32 A). ■



Günter Grünebast
Head of Standardisation/
Testing/Certification



▲ Christopher Mennekes (MENNEKES Elektrotechnik GmbH und Co. KG), Andreas Müller (Doepke), Johann Meints (Doepke), Thomas Sell (Theben AG)

Strong partners

Doepke is now a member of Elektromarken

Networks are important, as challenges can best be overcome together. That's why Doepke became a member of the Elektromarken initiative on 1 January, and is now one of 18 strong partners that are all leading brand manufacturers in Germany.

The objective of the Elektromarken initiative is to pool together the dependable expertise and trusted quality of the German electrical industry. Greater public attention is to be drawn to the services and qualities of the leading brand manufacturers. The Elektromarken initiative is achieving this through image-boosting campaigns, extensive publicity work, presence

at key trade fairs in the industry and training programmes. Measures to promote brand awareness also include the 'Elmar' brand prize, which is awarded to electrical contractors that make a special contribution to brand awareness and offer innovative brand concepts.

In another category, innovative staffing methods are awarded the 'Elmar Employer' prize, while the 'Elmar Newcomer' award is given to new companies with a strong brand. In addition, the initiative gives grants to young, committed electricians for master craftsman training. ■

Doepke on the ground – autumn 2018 trade fairs

Direct contact and lively exchanges with our customers have always taken centre stage at Doepke. We not only work for our customers, but above all with them; after all, challenges can be best overcome by working together, and the best solutions come about through collaboration. Presence on the ground is essential for developing contacts effectively, so it's no surprise that Doepke was represented at

the regional trade fairs belectro, GET Nord and SPS IPC Drives in the autumn. At Doepke's stand, our colleagues provided information on, for example, the DCTR smart transformer, the DFA 3 remote actuator and AC-DC sensitive residual current protection for even the most limited spaces. Our colleagues were also called upon as speakers in Berlin, Hamburg and Nuremberg. ■

▼ The Doepke team (l.-r.): Ralf Bruns, Holger Meier (Sales Promotion), Johann Meints (Marketing), Nicole Sikken (National Sales), Melanie Brandes (Product Management), Stefan Davids (Sales Promotion)



Intelligent networking

The breakthrough of the smart home and its residual current protection requirements

The term ‘smart home’ is on everyone’s lips and means the networking, remote control and automation of key building functions and processes such as heating, ventilation, air conditioning, protection from sunlight, and if required even surveillance, alarms or use of electrical equipment. The aim of an ‘intelligent house’ is to improve the quality of life and living, boost security and make homes more energy efficient.

Making a home ‘smart’ places high demands on the electrical installations and on protection against dangerous residual currents.

A networked home relies on electricity being permanently available. Power outages, e.g. due to storms or apparently random tripping of residual current circuit-breakers, are undesirable and could cause extensive work if the smart home has to be reprogrammed.

To improve energy efficiency, the mostly single-phase smart home appliances are often

equipped with switched-mode power supplies or – in the case of intelligent heating and thermal pumps, as well as washing machines – with frequency converters. When they are switched on, switched-mode power supplies, which can also be found in PCs, and also ballasts in LED lighting, cause a pulsed surge current, which is not dangerous but is likely to cause a conventional Type A residual current circuit-breaker to trip. In addition, switched-mode power supplies and frequency converters can cause residual currents with mixed frequencies.

There is a risk that Type A pulsating AC-DC sensitive residual current circuit-breakers will not detect them reliably.

Therefore the use of mixed frequency sensitive Type F residual current circuit-breakers is strongly recommended for smart homes. DFS 4 F residual current circuit-breakers from Doepke are highly resistant to surge currents and even lightning. However, they still react reliably to pulsating and AC residual currents

as well as residual currents with mixed frequencies, ensuring electricity can still be used safely in smart homes.

This is achieved through a sophisticated, patented electronics system that is powered exclusively by the low energy of the summation current transformer generated by the residual current. Therefore the residual current circuit-breaker remains independent of auxiliary voltage and does not consume any extra energy from the network. ■



Gerold Roofls
Head of Development
and Construction



Questions from everyday life

Can residual current circuit-breakers with an EV design be used for applications other than in charging devices for electric vehicles?

The DFS 4 A EV pulsating AC-DC sensitive residual current circuit-breakers and DFS 4 F EV mixed frequency sensitive residual current circuit-breakers have an active additional function. This allows the circuit-breakers with an EV design to detect smooth DC residual currents ≥ 6 mA. These can occur when electric vehicles are charged and, in the worst-case

scenario, can cause a malfunction if Type A or F residual current circuit-breakers without an additional function are used.

Therefore due to their additional function, the EV circuit-breakers protect both themselves and upstream (possibly unknown) residual current devices against DC residual currents and resulting malfunctions. Residual current circuit-breakers with an EV design are therefore optimised for use in charging columns and wall boxes.

They are not suitable for electronic consumers that work with frequencies extending into the kilohertz range and that may generate residual currents with frequencies not equal to 50 Hz in addition to smooth DC residual currents.

Type B AC-DC sensitive residual current circuit-breakers must be used in this case. They are required in many different directives and regulations. ■

Our electrical finds

Be it cable chaos, a curious installation or even 'chindogu' – the electrical curiosities we encounter have one thing in common: they're all eye catching and are out of the ordinary. Chindogu, by the way, is Japanese and means 'unusual tool'. The term refers to inventions that the world doesn't really need but finds very amusing.

We want to make you stare in amazement, shake your head or laugh out loud, so we are going to share our favourite electrical finds with you in a regular feature.

This – interesting, shall we say – installation comes from Cala Ratjada (also called Cala Rajada) in Majorca. The photo was sent in by Philip Hengelhaupt and Moritz Möller from our retailer H. J. Möller. They found it interesting to see what can pass as a mobile building-site distribution board in Spain. ■



Do you have an entertaining electrical find to show us?

Take a photo of it and send it to us at: kommunikation@doepke.de
Important: we can only consider photos that you have taken yourself.

Pinni's travels: Pinni in Bella Italia

**Knowest thou the land where lemon blossom grows,
In foliage dark the golden orange glows,
A gentle breeze blows from the azure sky,
Still stands the myrtle, and the laurel, high?
Dost know it well?**

'Tis there! 'Tis there!

Would I with thee, oh my beloved, fare.

Johann Wolfgang von Goethe was a lover of Italy and now Pinni feels like a pig – or rather a seal – in clover there too. Pinni had his photo taken on the Via dell'Amicizia – Riva del Garda rope-lined hiking route. The town of Riva and Lake Garda can be seen in the background.



The route leads up to Cima SAT, a 1246 m-high peak of Mount Rocchetta. ■

EV site visit



Fittingly, the guests drove to our plant in electric cars, and our electric company car looked very stylish in this group.

We welcomed visitors from Böhm Elektrobau, Bürgel GmbH, Marschner Elektrotechnik and Paech Elektro in November. All of these companies have specialised in expanding the charging infrastructure for electric cars and they actively share know-how.

Knowledge-sharing also played a key part in their visit to us in Norden.

After a tour around our plant, our electromobility products were of course the focus of the training session that followed. The participants also contributed a wealth of suggestions and requests to us, in our capacity as manufacturer. ■

DATES/NOTES

Specialist Training in Building Technology, Rostock

22–24 January 2019

Stadthalle Rostock,

Doepke stand on the ground floor

Elektrotechnik

Trade fair for building services, industrial, energy and lighting applications, Dortmund

13–15 February 2019

Hall 3, stand C 24

Eltefa

Trade fair for electrical engineering, Stuttgart

20–22 March 2019

Hall 6, stand B 62

Hannover Messe – the world's leading trade fair for industrial technology

1–5 April 2019

Hall 13, stand C21

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QUOTE OF THE QUARTER

*New year – new life
(Anno nuovo – vita nuova)*

from Italy