

DIZ Doepke-Info-Zeitung

The free customer newsletter by Doepke Schaltgeräte GmbH



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Anniversary celebration and sunny outlook

25 years of production in Bickenriede

In August, more than 120 people in the Doepke family travelled to Bickenriede in Thuringia by bus, car, motorbike and even plane to celebrate the 25th anniversary of the production plant there. The event was not only attended by staff, former employees and relatives from Norden, but also by field service colleagues from all corners of Germany.

A tour of the plant was the first item on the agenda on Saturday morning, followed by a trip on the tourist train and a stroll around the neighbouring town of Mühlhausen.

It wasn't just the Doepke staff who attended the party on Saturday evening, the current (and one former) mayor of Anrode also made an appearance, along with Bernd Tiedemann from our commercial agency Bolk und Schulter and Gerald Meimbresse, Uwe Plettenberg and Hermann-Josef Goldmann from the Kassel-based wholesaler CL Bergmann. As you would expect

for an anniversary celebration, there were one or two speeches: Mayor Jonas Urbach emphasised the importance of jobs for the region in his welcoming words, and looked back on the plant's foundation-laying ceremony in autumn 1992. He was there then too – in the local primary school choir!

Building work was on the agenda again in 2018, the 25th anniversary year, explained Doepke Managing Director Andreas Müller in his speech.

After extensive renovation work this summer, the plant has now been extended by approx. 720 square metres. In typical Doepke style, the party then went on late into the night with delicious regional food, live music, dancing, conversation and high spirits. There was a special surprise in the form of an excellent buffet at midnight, with home-made cakes and gateaux baked by Bickenriede colleagues. ■

25 years of production in Bickenriede

1991 — First plans: company founder Franz Doepke looks for a location in the former East Germany. His eye is drawn to the site of a former market garden in Bickenriede.

1992 — The foundation stone for constructing the Bickenriede production plant is laid in October.

1993 — Electronics production starts in September.

1994 — Joachim Retzek takes over the leadership of the plant in December.

1995 — Production of the DLS 5 miniature circuit-breaker starts in Bickenriede.

2009 — Production of the new generation of miniature circuit-breakers, the DLS 6, begins. It is still manufactured in Bickenriede today, along with assemblies.

2018 — The plant is renovated and extended in its 25th anniversary year.

STANDARDISATION

Updated version of
DIN VDE 0100-704

The new version of DIN VDE 0100-704 – construction of low voltage installations – requirements for work premises, rooms and special types of installations – construction sites – is being published in October 2018.

The updated standard stipulates that three-phase sockets up to 63 A must always be protected using AC-DC sensitive residual current devices. In other words, the Type B is now mandatory in building-site distribution boards.

This is not actually completely new, as DIN VDE 0100-530 already stipulates that Type B residual current devices must be used with, for example, frequency-controlled equipment that may give rise to smooth DC residual currents in the event of a fault. These are part of everyday life on construction sites, as they include cranes and equipment with power-controlled drives such as masonry saws, wire saws, pumps, fans, sand sieves, compressors, vibrators, etc. There is a long transition period, but equipping building-site distribution boards to comply with legal standards is and remains a managerial decision and is the responsibility of the builder or operator. This decision is made somewhat easier thanks to an incentive from BG Bau. It will provide a subsidy of up to 300 euros for upgrades to building-site distribution boards to ensure they include AC-DC sensitive residual current circuit-breakers. There is more information and an application form on the BG Bau website. ■



Günter Grünebast
Head of Standardisation/
Testing/Certification



Weathering the storm – using electricity safely when lightning strikes

Short-time delayed residual current circuit-breakers make all the difference

Not every residual current circuit-breaker is lightning-resistant. The reason? Even lightning strikes that are some distance away can cause brief overvoltage. They give rise to transient (temporary) leakage currents, which a residual current circuit-breaker cannot distinguish from an actual residual current. As a result, the circuit-breaker trips.

Usually, the RCCB then has to be reactivated manually. This is not a problem in itself, but if the home owner is on holiday, the connected electrical equipment is very sensitive or the electrical installation is far away, then faulty tripping can have unwanted consequences. Who wants to come back from their holiday to defrosted food in their freezer, to have to regularly send a technician to a charging station for electric vehicles, or to absorb production downtimes just because there's been a storm?

Short-time delayed residual current circuit-breakers can help solve this problem. They wait for a short time if a differential current occurs. If it is still present after 10 milliseconds, the RCCB trips. To explain it in technical terms: because they feature a response delay, short-time delayed residual current circuit-break-

ers only respond to residual currents that last longer than a half-period of the power frequency.

The tripping time required by technical standards can be met easily too. It is 40–300 milliseconds, depending on the size of the residual current. Therefore a short-time delayed residual current circuit-breaker can easily be used instead of a standard switch.

The Doepke Type F – for mixed frequencies – DFS residual current circuit-breaker and the AC-DC sensitive Type B and B+ DFS are already short-time delayed and lightning-resistant, which can be seen by the 'G' on the housing.

The Type A DFS, which is sensitive to pulsating currents, also has a short-time delayed design, indicated by the abbreviation 'KV'. Doepke also offers a short-time delayed version for residual current operated circuit-breakers with integral overcurrent protection and arc-fault detection devices (AFDD).

The short-time delay not only helps to prevent unwanted tripping during storms, but also tripping due to high inrush currents from strip lights, ICT systems, neon lamps and switching power supplies. ■

Questions from everyday life

Can I use a residual current circuit-breaker with automatic restart (e.g. a DRCCB 5 STR or a combination of DFS and DFA remote actuators) in all cases?

Generally, automatic restart is only permitted in areas that can be accessed solely by people with electrical training and qualified electricians. However, DIN VDE 0100-530 released in June 2018 now stipulates that devices

with automatic restart are also permitted in areas that can be accessed by laypersons, if the devices used meet the evaluation criteria according to DIN EN 50557 (VDE 0640-20):2012, section 4.3.2.

Our DRCCB 5 STR (Selftest Restart) meets these requirements, as it carries out a simplified insulation test using a safety extra-low voltage before the restart. ■



Our DFS 4 B SK HD construction site power switch – use electricity safely on construction sites

Building-site distribution boards pose a number of challenges for constructors:

- 1 — Frequency-controlled equipment that may generate smooth DC residual currents in the event of a fault is used on construction sites.
- 2 — Building-site distribution boards are exposed to extreme weather conditions and mechanical stresses.
- 3 — In winter, building-site distribution boards are left unused for weeks without a power supply and usually in unheated warehouses.

Our DFS 4 B SK HD construction site power switch is perfectly equipped to meet these challenges: as a Type B AC-DC sensitive component, it reliably detects pulsating and AC residual currents, residual currents with mixed frequencies and smooth DC residual currents. Switches with tripping characteristic curve SK respond less sensitively to operation-related leakage currents, e.g. those caused by cranes.

This lower response sensitivity at high frequencies increases the availability of the equipment significantly. The HD design

ensures the residual current circuit-breaker is well protected and works reliably, even if there are adverse conditions such as cold, heat, extreme temperature fluctuations, dust and the presence of corrosive gases.

The self-protection feature of the HD residual current circuit-breaker is a fundamental part of its design and is therefore permanently available: 24 hours per day, 7 days per week, 365 days per year – and even when there is no power supply. ■



Protection against electricity: rules for handling electricity safely

We want to make the world a little safer every day with our products and expertise. That includes sharing our knowledge, for example by raising awareness of potential hazards in everyday (working) life.

Usually, you cannot see, hear or smell electricity. Yet if it is handled incorrectly, it can damage health or even endanger life. Every year, accidents happen relating to electricity, some of them serious. BG ETEM alone reported more than 3600 incidents in its field in 2017. In 2015, 36 people died in Germany due to an electrical accident. Thankfully, the number of fatalities has been falling for some years. Many electrical accidents can be prevented by acting properly. That's why we publish our

rules for handling electricity safely: to remind laypersons and qualified electricians alike what they need to look out for.

The basic requirement for using electricity safely is to take appropriate measures yourself and ensure electrical installation is safe.

— Use safe, high-quality, long-term products. Ensure all products have a CE mark and/or are certified to DIN, EN or IEC standards or other technical regulations and laws.

— Regularly test residual current circuit-breakers to ensure they work properly by pressing the test button. Then you can be sure that the equipment is working properly and will extend its life. Laypersons can do this too.

— Electrical installations can age and should therefore be checked regularly by an expert. An e-check by a member of a professional body is recommended for this.

— Even though electrical installation products are often freely available to buy, selecting and installing them is a matter for electrical professionals.

— Where electrical installation work is to be carried out, the following five safety rules apply, particularly to qualified electricians: release, secure against restart, ensure disconnection from the power, earth and short-circuit if necessary and cover or contain any live parts. ■



Melanie Brandes
Product Management Team Leader

Our electrical finds

Be it cable chaos, a curious installation or even 'chindogu' – the electrical curiosities we encounter have one thing in common: they catch the eye 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 particular cable chaos comes from Mexico. What stands out most of all is the loose wires hanging down, says Ralf Schüler, who shared the photo with us. ■



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:

Bali: hiking up a volcano

Pinni went on a tiring but exciting hiking tour for this wonderful moment: sunrise over Mount Agung. Gunung Agung (Indonesian for 'big mountain') is an active stratovolcano and the highest elevation on the Indonesian island of Bali. This photo was taken from Mount Batur, which is also an active stratovolcano. To get to the summit in time for sunrise took a 4 am start, with the trek heading off by torchlight. Within two hours, Pinni and friends had conquered roughly 700 metres of climbing. Incidentally, Mount



Photo: Anja Huisman

Agung last erupted in summer 2018. Mount Batur has been a little quieter: its last eruption was around 18 years ago. ■

Doepke on site – Ralf Bruns and Mario Sembritzki strengthen the Sales Promotion team

Be it training, measurement, an object-related report or an individual solution: numerous challenges can be better examined and mastered jointly on site. That's why you won't only find us at our branches in Norden, Bickenriede, Daventry and Sharjah, but will also come across our field sales staff and commercial agents at a site near you. There are two new faces on our Sales Promotion team this year. **Ralf Bruns** joined us in January.



The 51-year-old is a skilled electrician, retail salesman and marketing specialist – and knows his way around software development.

Based in Sittensen – exactly halfway between Bremen and Hamburg – he looks after Lower Saxony, Bremen, Hamburg, Schleswig-Holstein and Mecklenburg-Western Pomerania as a field sales executive. His favourite activity outside work is spending time with his daughters and friends.

Mario Sembritzki joined the team in March.

The 29-year-old with a Bachelor's degree in Electrical Engineering had already written his dissertation at Doepke. He is now the point of contact for the Bielefeld area, as well as for Dortmund and the surrounding



Happy about the new members: the Sales Promotion team with Head of Sales Nicole Sikken

region. He is very sporty in his free time: his hobbies are windsurfing, kite surfing and mountain climbing.

The other faces on the Sales Promotion team are well known to most people: **Stefan Davids** leads the Sales Promotion team and his training work takes him all over Germany. **Stefan Ahrling** is in charge of Düsseldorf, Cologne, Frankfurt, Saarbrücken and the surrounding areas **Holger Meier** works for Doepke across Berlin-Brandenburg, Saxony-Anhalt, Saxony and Thuringia. **Wolfgang Sorg** looks after Bavaria and Switzerland. **Florian Schmitt** came on board in 2017 and is responsible for customers in Baden-Württemberg. ■

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QUOTE OF THE QUARTER

Dripping water can penetrate stone.

From Bali

DATES/NOTES

belektro, Berlin

6–8 November 2018
Hall 1.2, stand 220

GET Nord, Hamburg

22–24 November 2018
Hall B5, stand 245

SPS IPC Drives, Nuremberg

27–29 November 2018
Hall 3, stand 232

Eltec 2019, Nuremberg

9–11 January 2019
Hall 1, stand 1-306