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DIZ Doepke-Info-Zeitung

The free customer newsletter by Doepke Schaltgeräte GmbH

Doepke

ELEKTRO MARKEN STARKE PARTNER ELEKTRO+ PREMIUM MARKEN Partner

IN THIS ISSUE

Building-site distribution boards – Have you upgraded yours yet?

The transition period under DIN VDE 0100-704 ended in mid-May

The transition period for upgrading building-site distribution boards with AC-DC sensitive protection as per DIN VDE 0100-704 came to an end on 18 May. This means that protection in the form of a type B RCCB has been required for all building-site distribution boards since that date. To be precise, three-phase sockets with a rated current up to and including 32 A must be protected using an RCCB with a rated residual current of max. 30 mA for the purpose of ensuring personal safety. Circuits with sockets exceeding 32 A must be protected by RCCBs with a rated residual current of max. 500 mA.

RCCBs from our highly robust HD range are, of course, ideal for use on building sites. At Doepke, the abbreviation 'HD' stands for 'heavy duty'. Circuit-breakers that have this additional abbreviation in the product name are extremely resistant to corrosion and are impervious to environmental influences such as extreme temperatures, dust, moisture and corrosive gases.

In addition to offering all the standard features of HD circuit-breakers, our ISΩ HD design of RCCB is also test-proof. This means that you do not have to disconnect the circuit-breaker before carrying out the insulation measurement in accordance with DIN VDE 0100-600 because there is no risk of falsifying the measured values.

Theoretically speaking, building-site distribution boards that were already in use on a building site at the end of the transition period only have to be upgraded if they are reconnected at a different location or on an entirely different building site.

However, there are compelling arguments for taking swift action if you have not upgraded yet.

The main one, of course, is safety. According to device standards, type A RCCBs may only be subjected to smooth DC residual currents up to a maximum of 6 mA. However, frequency-controlled equipment (cranes, pumps, fans, compactors, concrete vibrating tools, etc.) is often used on buildings sites and this is capable of generating residual currents with frequencies not equal to 50 Hz as well as smooth DC residual currents. The only way to ensure reliable residual current protection in such cases is to use type B RCCBs, which reliably detect pulsating and AC residual currents, residual currents with a mixed frequency component and smooth DC residual currents.

Another incentive for upgrading quickly – at least in Germany – is the grant available from BG Bau (the employers' liability insurance association of the construction industry). If sufficient funds are available, BG Bau will pay a grant of up to EUR 300 to cover the cost of upgrading building-site distribution boards with AC-DC sensitive protection. All BG Bau members are welcome to apply for the grant. ■

Doepke live and digital events

Expert talks, a virtual trade fair and live consultation

Despite the initial easing of the coronavirus measures, we are still primarily communicating by Teams, Zoom, Skype, GoToMeeting and various other brands of video conferencing software. Let's be honest: digitalisation does also offer some huge advantages. We can search for events based on our interest in the topic rather than on where they are going to be held. And, ultimately, we can attend them from the comfort of our own desk, sofa, balcony or patio.

This is why Doepke is continuing to rely on its extensive and diverse digital offering, which comprises the online training courses and compact seminars from the Doepke Academy, the expert talks, the social network channels and the Doepke Digital virtual trade fair platform.

The most recent expert talk was hosted in mid-May. Once again, Doepke succeeded in recruiting two guest speakers of the very highest calibre to lead the interactive panel discussion in the form of Marcel Aulenbach (VdS expert) and Dirk Maske (Head of the Standards Information Service at the German Federal Technology Centre for Electrical Engineering and Information Technology [BFE] in Oldenburg).

The selection of topics was also spot on: existing protection, the amendment of DIN 18015 and the measurement of miniature circuit-breakers. It is little surprise, then, that 200 people signed up to attend the live event on their PCs, laptops, tablets and smartphones. Just like the first Doepke talk, the audience actively participated by asking questions and contributing to the discussion. Anyone who missed the Doepke talk can watch the recording on our website.

You will already be familiar with our digital trade fair platform called Doepke Digital, which we presented in the last issue of DIZ. It is still very much the place to go for multi-media content covering every aspect of the safe use of electricity. However, you can also use it to contact our experts and receive advice via the chat or video chat functions. We also host live 'advice days' on a regular basis. Think of this as the virtual equivalent to what happens at a 'real' trade fair: all the experts are there and are ready to offer you personal, on-the-spot advice as you chat to them at the edge of the trade fair stand.

The new dates for our Doepke Academy – with its webinars plus the expert talk – will be published on our website soon, along with the date of the next live advice event. ■

Doepke talk facts and figures

Experts
— 5 (Marcel Aulenbach, Dirk Maske, Axel Kampf, Stefan Davids and Johann Meints)

Attendees
— almost 200

Topics
— existing protection
— upgrading building-site distribution boards with AC-DC sensitive protection
— DIN 18015 Part 1
— live measurements for MCB protection

Questions and discussion via chat
— more than 60

Cups of East Frisian tea drunk
— 3 (in keeping with the East Frisian saying 'dree is Ostfreesenrecht', which implies that three cups is the perfect amount)

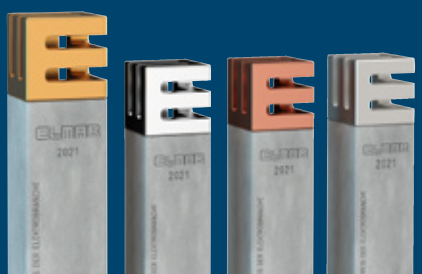
Doepke's digital offerings

www.akademie.doepke.de
doepke-digital.expo-ip.com
www.youtube.com/doepkegmbh
www.facebook.com/doepke.de
www.instagram.com/doepke_schaltgeraete
www.linkedin.com/company/doepke-schaltgeräte-gmbh
www.xing.com/pages/doepkeschaltgeratemgmbh

The ELMAR – brand prize 2021

This year, the ELMAR brand prize will once again be awarded as part of the 'Elektromarken. Starke Partner' ('Electrical brands. Strong partners') initiative. It is awarded annually to companies from the electrical industry who have been recognised for their outstanding brand awareness, and the innovative concepts and new strategies that they have brought to the electrical trade. Would you like to win an ELMAR prize for your brand? Simply enter by 15 August 2021 and use it as an opportunity to showcase your electrical company as somewhere that pays careful attention to its brand.

The link to the competition page, including everything you need to know about the ELMAR prize, can be found at elektromarken.de. ■



Residual current protection for electromobility

Protecting charging points and wall boxes in accordance with standards

In mid-February, the German Federal Parliament passed the Building Electromobility Infrastructure Act (Gebäude-Elektromobilitäts-infrastrukturgesetz, GEIG). This law is intended to ensure that private citizens can charge their electric vehicles whether they are at work, in the middle of doing the shopping or at home. Anyone who is planning a building with more than five car parking spaces located within or directly adjacent to the structure or who is renovating such a building will, in future, be required to include charging equipment for electric vehicles as part of the plan. And although this does not apply to single-household and two-household dwellings, even these are increasingly being developed and retrofitted with the equipment. There has been a particular upsurge in this since November 2020. This was when the German Federal Government started using the KfW investment and development bank to fund not only the purchase of electric vehicles but also the purchase, connection and installation of the associated charging equipment at private residential buildings.

According to the German Association of the Energy and Water Industries (BDEW), around 85 % of all electric vehicle charging operations take place on private property.

The installation regulations for electromobility charging equipment – DIN VDE 0100-722 – specify that every socket used to charge an electric vehicle must be protected by its own residual current device (RCD). But which RCDS are suitable for this? When retrofitting charging points or wall boxes, it is essential to take account of the existing electrical infrastructures. And, depending on the age of the building, these can vary a great deal. What's more, with multi-phase charging, smooth DC residual currents can be generated, thereby creating a critical problem. To ensure comprehensive safety in this regard, the IEC (International Electrotechnical Commission)

has drawn up requirements at an international level in the form of IEC 61851-1 to cover the residual current devices used in electric vehicle charging equipment.

One possible option, for example, is to use a type B RCD. However, if a type A or type F RCD (or an unknown protective device) is installed upstream, a type B RCD ceases to be a suitable method of protection. This is because it creates the risk of 'blinding' any upstream RCDs. 'Blinding' is the phenomenon that occurs when a type A or type F RCCB without an additional device is exposed to smooth DC residual currents and, in a worst-case scenario, loses its protective function without being noticed due to magnetisation of the summation current transformer core.

Another way to protect a charging station against residual currents is to combine a monitoring module for 6 mA DC detection with an additional type A or type F RCD. When working with this particular combination, the person or company responsible for the installation must, however, always carefully follow the switch-off criteria required in the event of a fault and be able to demonstrate that they have done so in cases of doubt.

Doepke developed the EV (electric vehicles) design of its DFS RCCB specifically for charging electric vehicles. These devices detect smooth DC residual currents and trip at 6 mA DC, making them the only RCDs that are VDE-certified according to the IEC 62955 standard. By using them, you can prevent the summation current transformer core from becoming pre-magnetised. This protection not only covers these RCDS, but also extends to any upstream type A and type F RCDs. ■

New: EV with emergency off function

The DFS 4 A EV NA provides reliable protection for electromobility charging devices. The residual current circuit-breaker not only monitors the charging device, but also the external emergency off circuit. If the event of danger, one or even several charging points can be switched off centrally at the push of a button. This ensures additional safety in public areas, for example.

- optimised for wall boxes and charging point
- DC detection from 6 mA and emergency off function in one unit
- emergency off circuit secure against wire breakage
- integrated auxiliary switch for remote signalling
- standard-compliant all-round protection, according to IEC 62955

Our electrical finds

Be it cable chaos, a curious installation or even 'chindogu' – the electrical curiosities we encounter have one thing in common: they are out of the ordinary and catch our eye. 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 by sharing our favourite electrical finds with you in this regular feature.

Whether it be in the sea, a lake or a river – we all love going for a cool dip in the summer. However, taking one close to this jetty could have some rather unpleasant consequences! Many thanks to Hardy Pehle for the photo.

Do you have an entertaining electrical find to show us? If so, please 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. ■

Sabiene's travels:

Tulips in 'Tuun'-isia

Travelling opportunities are gradually opening up again. But before Sabiene heads off on any new long-distance trips, it is worth mentioning that, in the spring, she really enjoyed seeing the tulips in 'Tuun'-isia. No, we haven't misspelt Tunisia! 'Tuun' is the Low German word for 'garden' and so her holiday in 'Tuun'-isia essentially amounted to a staycation in East Frisia.

Sabiene is now looking forward to her first long-distance trip for nearly a year and a half; she even has her bags packed already. Just wait and see where Sabiene's next adventure (big or small) will lead! ■

New product boards for Bickenriede

Four new product boards have recently been installed at our factory in Bickenriede. They have been hung directly in the factory entrance area so that our product range is the first thing our employees and visitors see. ■

An unexpected long-distance visitor

Even though there are still some restrictions on travel, certain 'stowaways' seem unfazed by these.

This gecko made his way inside a crate of materials and ended up at our factory in Norden, East Frisia. It gave our colleagues in the warehouse a bit of a fright but once they had got over the shock and spoken to the veterinary office, the animal was handed over to the relevant experts. ■

DFS Audio can be heard far and wide

DFS Audio, our RCCB for high-quality music systems in the home or in public venues is the talk of the Hi-Fi world. We have even discovered some reviews in Portuguese and Polish – and very positive ones at that!

Professional musician Götz Kelling-Urban from Bremen seemed similarly impressed when we interviewed him, in strict accordance with the coronavirus regulations, via web conference. You will be able to read his description of the difference in sound between standard RCCBs and DFS Audio in the next issue of DIZ. ■

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QUOTE OF THE QUARTER

What good is the warmth of summer, without the cold of winter to give it sweetness?

John Steinbeck

DATES/NOTES

Doepke Academy

Interactive webinars on our new products and latest topics.

All the dates and additional information can be found at

www.akademie.doepke.de

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