The experts in residual current technology



Partner of voltimum.de

# DOEPKE-INFO-ZEITUNG FREE CUSTOMER NEWSLETTER BY DOEPKE SCHALTGERÄTE GMBH

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# When things get tight, a combination may be just what you need

## RCCB/MCB combinations (RCBOs) offer significant advantages for certain applications

They do not cover the entire product range of conventional residual current circuit breakers (RCCBs), but have strengths which can be played out depending on the situation: residual current circuit-breakers with integrated overcurrent protection (RCBOs).

As the name suggests, these devices combine residual current and overcurrent protection in one housing. A construction integrated in this way enables a particularly space-saving arrangement of components so that ultimately more functionality is accommodated per modular unit in the distribution box.

Hardly surprisingly, one possible use for the saved space is the installation of additional RCBOs. For example, a RCCB with several miniature circuitbreakers offers combined residual current protection for all connected circuits. When an RCCB is tripped, all circuits are disconnected.

An alternative configuration using a RCBO can achieve a space saving of up to 40 %. Another configuration

Doepke

with several RCBOs provides a space saving

15 % but allows an individual rated residual current to be selected for each device. In this way, personal and fire safety can be adapted

perfectly taking into account local conditions. This equates to considerable added value for the installation.

In terms of technology and functionality, both the circuit-breaker and miniature circuit-breaker components represent viable alternatives to

separate devices, with no requirement to observe specific connection

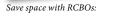
instructions. Even in terms of wiring, there are no peculiarities except for the fact that less

copper is required as the RCCB and MCB are already connected.

RCBOs are available in several designs: Type A or Type B, SK or NK characteristic curve, B or C characteristics and there are of course various rated currents and rated residual currents. Nevertheless, the choice is limited in comparison with a conventional RCCB programme, which means that there is not an equivalent RCBO for every RCCB. Anyhow, the technology from two devices must be brought together in one housing. In particular, higher rated currents bring the technology to its limits, so there are RCBOs which are sensitive to all currents up to 32 A and those sensitive to pulsating currents up to 40 A (two and four-pole).

Further information on these devices can be found in our latest brochures "Doepke's RCBOs" (general information, publication number 5900222, hard copy or PDF, German only) and "RCBOs FIB/FIC" (product details, publication number 5900182, in English, PDF only).





for further information see our latest brochures













# This is how the content of our printed products comes about

A new product database as a central source of information for printed and online publications

You may not necessarily have considered it, but anyone who has ever tried to create one will know how much effort goes into it: our product catalogue.

After many years of having our catalogue typeset by an external service provider, which was exceedingly time-consuming, in March 2011 a new system for product information management (PIM) was introduced.

The software has a modular construction and essentially comprises a database and various Java front-ends. It has a variety of features, including:

- » structured product organisation
- » browser-based data maintenance
- » catalogue and brochure creation
- » simplified translation process
- technical and product management data output e.g.
   BMECat, ETIM and GAEB
- » population of websites with up-todate technical specifications

When designing the database, all of the technical specifications (product characteristics) from previous catalogues were sorted and summarised. Overall, more than 1000 characteristics emerged. Furthermore, the entire product range was divided into product groups.

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DFS4 040-4/0,50-A [09137901]
DFS4 063-4/0,03-A [091449]
DFS4 063-4/0,30-A [09145]
DFS4 063-4/0,30-A [0914]
DFS4 063-4/0,50-A [091
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DFS4 100-4/0,03-A [0916500
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The characteristics of each product are described in minute detail.

The relevant characteristics then had to be assigned to the different product groups. There are almost 500 of these for our largest product group alone, the RCCBs.

The first printed catalogue created with PIM support was just filled with technical specifications ready for Light & Building 2012. The sequences developed during this process could then be used as a basis, making the creation of the subsequent catalogue for 2013 significantly easier.

The first BMEcat / ETIM database for the electrical wholesale trade was generated in the same way.

In the future, it will be possible to Produktmerkmale - 14a\_RCP furnish additional applications with Merkmal technical specifications (websites, Auslösecharakteristik datasheets, instruction manuals Auslösekennlinientvp etc.) from the large database in the PIM system. Ausgang O1 Bemessungsstrom (AC Bemessungsfehlerstrom IAn The following are clear, Auslösefrequenzbereich (min) even after just one year in Auslösefrequenzbereich (max) operation: purchasing this Auslösefrequenz (typ.) system was a worthwhile investment. the time invested kurzzeitverzögert in developing the product and selektiv data structures and populating Grenznichtansprechzeit bei 2 the database with data will be paid Abschaltzeit bei 1 · I∆n (m back quickly. Abschaltzeit bei 5

Produktprogramm Doepke ■ Differenzstro # Pl mit integr. Überstremschutz (RCBO) Fehierstromschutzschalter (RCCB) ■ Gebäudesystemtechnik ☐ Integr Differenzstron ■ Leistungsschafter mit F1 (CBR) H Calletungsschutzschalter (MCB) Modulare Fehlerstromschutzgeräte (MRCD) ■ Physikalische Steuergeräte Relais Schalter und Taster Schotze Sonstiges ... Wander ⊕ Cubehtr



The tree structure of the database (left) requires a clear breakdown of product groups.

The features (right) are then assigned in different combinations.

# Hot off the press: the 2013 main catalogue

### A current overview of the Doepke supply programme

Just under a kilo with just short of 300 pages, the latest German Doepke main catalogue has arrived!

The appearance of the previous catalogue has proven to be effective, enabling changes to content to be made and details refined more easily. There are new product images and the residual current colour scheme, for example, can once again be found in the table of contents so it is immediately possible to identify where certain devices are located in the catalogue.

The new database-driven production process (see above) simplifies catalogue production, enabling the Doepke catalogue to be published annually in the future and not, like previously, in a two-yearly cycle.

We would be happy to provide you with a copy of our main catalogue, on request. Please contact **bestellung@doepke.de** and let us know whether you would like to receive the catalogue once only or on a regular basis.



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# RP 230 external indicator panel

Maintenance-free visual and acoustic remote indication of the switching status for protection and monitoring equipment



The RP 230 "small" indicator panel

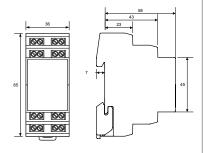
The RP 230 indicator panel with 230 V AC rated operating voltage and an installation width of just two modular units is used for remote signalling the surge arresters which are mandatory in Norway.

The L1/N input terminals are connected via their signalling contacts, which are designed as normally opened contacts. This facilitates flexible use, even with other protection and monitoring equipment.

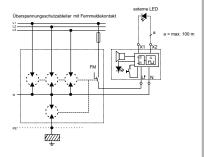
The Piezo signal transmitter reports defects in the protection and monitoring equipment and/or surge protection unit acoustically; the red LED on the front of the housing flashes and (if connected) the external LED flashes reciprocally.

The acoustic signal only can be deactivated by briefly pressing the reset button on the front panel. The LEDs will be extinguished only after the signalling contact has been reset and/or the fault remedied.

Via the integrated series resistor, an additional LED for remote indication can be connected directly to the X1/X2 outputs with an open circuit voltage of 24 V DC, which are designed to be short-circuit proof semi-conductors. In this way, the message can also be signalled outside of the distribution board.



Dimensions of the indicator panel



Wiring of RP 230 with external LED

The maximum load capacity of the external output is 10 mA. In order to connect higher loads, the SIR 16 M load control unit can be used in place of the LED.

The output signal meets the requirements for protective disconnection (SELV) and is protected against the results of short-circuits or surges.

The device is dead while the signalling contact is open, only in the event of a signal will it require low power consumption.

The housing design is optimised for integration in insulated distribution boards, works in any position and is mounted by snapping onto a TH35 profile rail in accordance with DIN EN 60715.



Product Management

### **GERMAN CHAMPIONSHIPS** IN THE ELECTRICAL TRADE

# Evidence of the achievements of young talent in the industry

German Federal Skills Competition for German young people working in the electrical trade

In November 2012, the 61st German Federal Skills Competition spanning seven qualified occupations in the electrical trade once again proved to be an impressive testimony to the commitment of young talent in the industry.

47 of the 66 winners from the federal states reported to the Federal Technology Centre for Electrical Engineering and Information Technology in Oldenburg in order to demonstrate their skills at a federal level. These German Championships in the Electrical Trade achieved a result to be proud of with 19 federal winners An overview of the investors in the German (seven in 1st place, seven in 2nd place and five in 3rd place).

The practical performance-based competition for young people takes place each summer after the final professional examinations. The competition is open to any tradesperson who was 25 years or younger on the date of their final examination and achieved at least a 'good' examination result.

The competition is carried out at four levels: guild, chamber, state and federal level.



Federal Skills Competition in a logo table

In addition to the allocation of awards and prizes, participants are for the most part presented with very good employment and training opportunities. Those ranked in 1st place at state and federal level also have the chance to receive support for further vocational training from the German Federal Ministry of Education and Science, Research and Technology's Vocational Training Programme for the Highly Talented.



All participants in the 61st German Federal Skills Competition

# Always well-packaged: Wolfgang Recknagel

## Congratulations on 35 years of service



Wolfgang Recknagel's motto: knuckle down, get on with it and wrap it up with speed and efficiency machinery and technologies.

Mr Wolfgang Recknagel first came to our company 35 years ago, on 15.02.1978. Over the first few years, he set about his work energetically in the Turning and Stamping Department. As assistance was required in the Packaging Department, Mr Recknagel switched departments and since then has assumed responsibility for the fast and professional packaging of all two-pole residual current circuit breakers.

In his free time, Mr Recknagel enjoys going to agricultural fairs and keeping up-to-date with the latest machinery and technologies.

### The angel out and about...

...this time on the Mayan trail



In front of the Kukulkan pyramid in Chichén Itzá, Yucatán, Mexico

Admittedly, the Doepke angel is hardly recognisable this time. However, he was there... there are credible witnesses to prove it.

### Roll of honour 2013

We would like to congratulate our long-serving employees who have been with us for 10, 25, 30 and 35 years:

#### 35 years of service

15.02.2013 Wolfgang Recknagel

#### 30 years of service

22.09.2013 Reinhard Esen 27.09.2013 Uwe Janssen

#### 25 years of service

01.08.2013 Jens Pabst15.08.2013 Otto Dzubigella11.10.2013 Herbert Oppenborn

#### 10 years of service

01.01.2013 Branco Leibrecht 09.01.2013 Birgit Dehde 05.05.2013 Anja Heckenberg 01.12.2013 Jose Cleetez

### DATES / NOTES

#### M. E. Electricity, Dubai, U.A.E.

17.02.-19.02.2013 Stand S1 A21, Sheikh Saeed hall, German Pavilion

#### BIG Show, Muscat, Oman 17.03.-20.03.2013

Stand 851, German Pavilion

# eltefa, Stuttgart, Germany

20.03.-22.03.2013 Hall 5, stand B62

#### Bauma, Munich, Germany

Art.-Nr. 5900218 | 01/2013

15.04.-21.04.2013 Hall A3, stand 240

# Building for the modern working environment

### .... and Doepke does too! Relief of strain and more space for the Development



Norden sets a course

With the liberalisation of license plates on 01. November 2012, it is now once again possible for the inhabitants of Norden to have their locality recorded on their license plate. Since 1977, Norden has belonged to the administrative district of Aurich, which meant that the own license plates expired and Aurich plates were distributed in their place. As a location-conscious company steeped in tradition, we naturally want to take this opportunity to assert our Norden heritage. In the future, whenever you see a vehicle with the license plate NOR ... please think of us! ■

As product development evolves, the construction measures currently taking place in the interior of our main building are easy to spot.

Since the new hall was obtained from Mechanics and electronics production could be completely restored to its former premises, it is now the turn of Product Development, Manufacturing Automation and Building & Operational Technology.

The cheerful and welcoming space for Automation and Building Technology is very close to delivery. The expansion of the Heavy Current Laboratory is proceeding well and even the testing bay will gain a great deal more space. If all of these measures are completed soon, then the product

developers will be able to get to work in the unburdened Development Laboratory at last. Lots of space should be given over for new ideas.

At this point, it seems fitting to thank the construction engineers for their outstanding commitment, which, for the most part, is ultimately down to their own personal contribution. Refurbishments in the course of ongoing operations with hardly

any noticeable disturbances to operational procedures – now that is quite an achievement!



Gerold Roolfs Head of Development and Construction

#### **PUBLISHER**

# Doepke

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# QUARTERLY QUOTE

The ornament of a house is the friends who frequent it.

Ralph Waldo Emerson