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Doepke

Keep a close eye on the RCCB

DFA —— devices monitor safe system operation
—— for two- and four-pole residual current circuit-breakers
—— DFA 2: RCCBs can be switched on/off and tripped remotely
—— DFA 3 in compact 1 module
—— automatic reclosing selectable

Selftest — intelligent residual current circuit-breaker
—— regular self-test without any interruption to the power supply
—— remote signalling
—— automatic restart with preliminary test (Selftest Restart)

Remote actuators DFA 2/3
Selftest/Selftest Restart

Reliable remote monitoring: DFA 2/3

In addition to the necessary deactivation in the event of a fault, there are other causes that can lead to the tripping of an RCCB, for example, lightning during storms or mains circuits in regenerative power generation. In some cases there is only a short-term fault current. However, if the system remains switched off for a longer period of time, because it is unmanned for example, this will incur costs. It is particularly important to use qualified personnel, who have to check the affected power distributor and put it back into operation. Photovoltaic systems or pumps in unmanned lifting stations, as well as charging stations for electric cars, are particularly at risk of system stops that remain unnoticed for extended periods of time.

Doepke's DFA remote actuators are the solution to this problem, used in combination with RCCBs of the DFS 2 or DFS 4 series to restore power as quickly as possible. For models with automatic reclosing equipment, power is restored automatically, 15 seconds after the RCCB is tripped – a maximum of three times. If repeated tripping occurs, in other words if there is an actual system failure, a manual on-site review is required. For models without automatic closing equipment, the power supply can be manually switched back on remotely.

Doepke's remote actuator goes even further. It can also be used to remotely monitor the corresponding residual current circuit-breaker. Message outputs signal its current status – so you can always keep an eye on the status of the switches being monitored.

Product overview: DFA 2/3 remote actuator

				status messages					
reference	operating voltage	RCCB: In max.	switch-on attempts	switched off	switched on	tripped	loched	remote trip	article number
DFA 2	24 V AC/DC	125 A	1	yes	yes	yes	no	yes	09 100 110
DFA 2-1	24 V AC/DC	63 A	1	yes	yes	yes	no	yes	09 100 112
DFA 2-2	24 V AC/DC	63 A	1 or 3	no	no	no	yes	no	09 100 113
DFA 2-3	230 V AC	125 A	1 or 3	yes	yes	yes	yes	yes	09 100 114
DFA 2-4	230 V AC	63 A	1 or 3	yes	yes	yes	yes	yes	09 100 115
DFA 3 024DC-0	24 V DC	125 A	0	yes	no	yes	no	no	09 100 141
DFA 3 024DC-3	24 V DC	125 A	3	yes	no	yes	no	no	09 100 143
RK 24	230 V AC	power supply 24 V AC for the DFA 2, DFA 2-1 and DFA 2-2, 2 module							09 980 654

The perfect remote actuator for every application

Doepke offers a wide range of different remote actuator models, so you always get the version that is specifically tailored to your needs. With integrated remote tripping, for example, the DFA 2 gives you the convenience of being able to test the RCCB quickly and easily at any time then reclose it, without having to be on-site.

The DFA 3 is available both with or without automatic reclosing. It is particularly suitable for retrofitting due to its narrow structural width of only 1 module. All DFA 2 and DFA 3 remotes are installed to the left of the RCCB. Depending on the model, an independent voltage source of 24 V or 230 V is required to guarantee the signalling and drive function.

Flashing code during blocking periods

If the automatic switch-on attempts are unsuccessful due to an actual system failure, the remote actuator is locked from further operation. In this case it can only be unlocked via the equipment itself. A flashing code indicates the blocked state for all versions of the DFA 2 and DFA 3 with automatic reclosing.

Automated function tests: Selftest/Selftest Restart

Automated function tests: Type DRCCB 5 ST

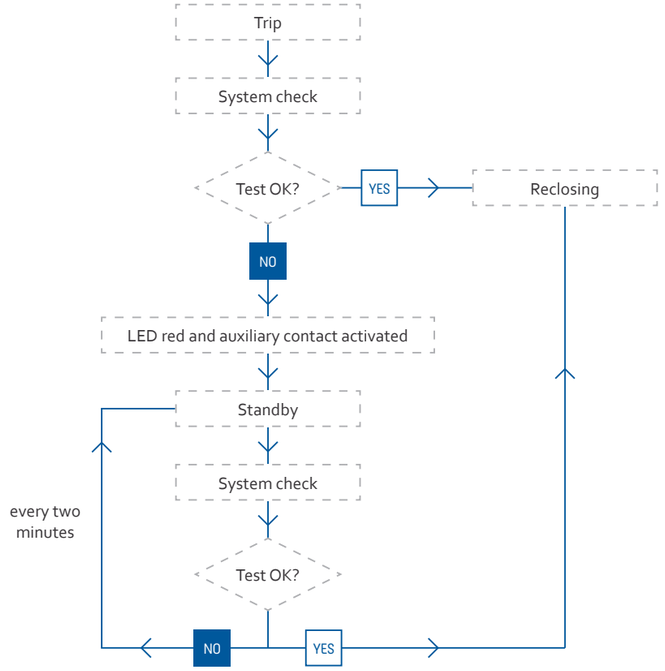
The 'Selftest' residual current circuit-breaker series performs monthly automated self-diagnostics to test the proper functioning of the breaker. While the self-test is being performed, bypass contacts supply the installation with power to prevent the system stopping. The test can be logged via a programmable, voltage-free contact. The protective function of the breaker can also be checked manually as desired by pressing the test button.
The ST design is available as type A residual current circuit-breaker (pulsating current/AC sensitive) with short-time delay.

Automatic reclosing: Type DRCCB 5 STR

The 'Selftest Restart' complements the 'Selftest' function by adding an automatic restart in the event of false trips.
The STR design is often used in server rooms or office facilities where surge currents that could cause standard residual current circuit-breakers to trip occur repeatedly due to consumers with power supplies being switched on at the same time.
The STR design is available as type A residual current circuit-breaker (pulsating current/AC sensitive) with short-time delay.

DRCCB 5 CM interface

The interface works with the open Modpus protocols to enable data to be exchanged with the device. It ensures that RCCBs of this series can be visualised and controlled.



When the 'Selftest Restart' is tripped, a simplified insulation resistance test is performed.
To avoid creating a critical installation situation at any point and to protect people or property, the insulation resistance test is carried out using a safety extra-low voltage of 24 V with shutdown installation. The installation is only switched on once it has been confirmed that it is fault-free. The insulation test takes approximately 10 seconds. If a fault is detected, repeat tests are performed every two minutes.

We are partners

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