

Keep a close eye on the rccb

DFA — remote actuators 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 TE breadth
- automatic reclosing selectable



Safe telemonitoring of residual current circuit-breakers

In addition to the necessary switch-offs 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 to restore power as quickly as possible. For models with automatic reclosing equipment, power is restored automatically, 15 seconds after the RCCB is tripped. Automatic reclosing occurs 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.

Uncomplicated retrofitting, wide-ranging applications

DFA's are mainly used in exposed outdoor facilities, such as photovoltaic and wind power plants. Other typical application areas include unmanned charging stations, heats pumps, radio installations and cooling systems. Previous RCCBs from the DFS series can be easily upgraded to a DFA through a simple grid connection.

Cost-effective right from the start

Twice as useful: Doepke's remote actuator offers reliable protection on the one hand, and a high level of system availability on the other, helping to avoid losses in revenue from downtime and costs incurred by on-site calls. This is because the remote eliminates this situation, as it can be used to switch the equipment on automatically; an on-site technician is only required when there is an actual system failure. This saves time and resources, meaning that the remote starts paying for itself from the very first time a breaker trips.





DFA 2/3 remote: overview of available versions

reference	operating voltage	RCCB: I_n max.	switch-on attempts	switched off	switched on	tripped	locked	remote tripping	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	power supply 24 V _{AC} for DFA 2, DFA 2-1 und DFA 2-2, 2 HP								09 980 654

The right remote for every use

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, 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 TE. 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.

BFlashing code during blocking periods

If the automatic switch-on attempts are unsuccessful due to an actual system failure, the remote is locked from further operation. In this case it can only be unlocked via the equipment itself. The blocked state is indicated by a flashing code for all versions of the DFA 2 and DFA 3, which automatically switch on again.



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