

Replacement of circuit breakers in Crisplant power panels



Replacement of outdated circuit breakers in the sorter control panel is made possible with the Crisplant Circuit Breaker Replacement Kit. Replacement of outdated circuit breakers helps prevent expensive downtime and loss of production.

The replacement kit is used for circuit breakers from the Kloecker Moeller and Siemens 3 VF series. These make have reached their end of life and spare parts are no longer available. The circuit breakers are installed in power panels supplied with Crisplant sorters before 2005. These sorters contain two circuit breakers with motor reset, of which one breaker supplies power for the linear motors and one breaker supplies power for the inductions.

Reasons to replace the circuit breakers

- **Malfunction:** The sorter cannot run unless the circuit breakers work.
- **Wear and tear:** Daily use will wear out the circuit breakers following repeatedly reconnection, due to activation of sorter E-stop or safety stop.
- **Safety:** A circuit breaker is a vital component and cannot be replaced by a temporary solution.
- **Downtime:** Sudden malfunction of a circuit breaker can result in sorter downtime.
- **Outdated parts:** There are no spare parts available in the market for the old circuit breakers in question.

FEATURES >>

- Fast and safe replacement on site.
- Preventive replacement outside production hours without causing any downtime.
- New and well functioning breakers.

BENEFITS >>

- Replacement eliminates risk of circuit breakers suddenly causing down time.
- Spares are available for new breakers.
- Replacement cost is minimal compared to sudden break-down during production.



After the replacement, the first section consists of the actual circuit breakers.



After the replacement, the second section consists of contactors to power linear motors and inductions.

After the replacement, the new circuit breakers are divided in two sections: One consisting of the actual circuit breaker. This section will function as a thermo magnetic trip unit with adjustable overload and short circuit and can be switched on and off manually. The second section consists of the contactors, installed in series of two but controlled as one unit. There are two contactors to supply power for the sorter's linear motors and two contactors to supply power for the inductions. These contactors feature electronic coupling in and out. Contactors will be positioned next to each other or in two layers. The exact position of the new series of circuit breakers will be decided according to available panel space.

Symptoms of malfunctioning circuit breaker

- The circuit breaker starts tripping for no reason. This is caused by a thermal overload arrangement inside the worn out breaker.
- Increasing difficulties when the circuit breaker is reconnected after E-stop or safety stop on the sorter.

Should any of the above mentioned circuit breaker types still be installed in your system, Crisplant strongly recommends a replacement. This can prevent an incident where a circuit breaker cannot reconnect, and hence causes sorting system downtime and production stop.

Compatibility: New circuit breakers can be arranged in the same position as existing circuit breakers. Contactors will be positioned nearby according to space.

Software: Any changes needed for Scada alarm messages are handled by Crisplant.

Accessories: Crisplant delivers and installs new breakers, wires and brackets, including labelling of the new breakers.

Training of local technicians: Crisplant will demonstrate the new breakers and train local technician in charge of the functionality.

Documentation: Update of sorter documentation is a standard part of the upgrade (including wiring diagram and recommended spare parts lists).

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