

## Why is circuit breaker testing important?

It's not uncommon that circuit breakers fail but testing them before they're installed can mean life and death in some cases. Keep your employees and clients safe by asking your supplier three key questions when purchasing circuit breakers:

- Is the product tested?
- What are the standards used in testing?
- Will you supply me a report as proof of testing?

**Some of the key reasons circuit breakers fail** are mechanical component issues (contacts opening too slowly, binding, or not opening at all), the circuit breaker may have been initially sized incorrectly (for example, a wrong KAIC rating could be the culprit), a relay and auxiliary device failure or loose bolt connections, as well as other environmental factors on the distribution system (ingress of dust/debris, periods of extended heat, massive overcurrent events).

These failures can cause overheating on insulation and conductor failure, severe arcing, potential for fire and damage or loss of costly downstream equipment. They can also lead to costly downtime for an end user's facility, the potential loss and liability of an arc flash event and, in severe cases, injury or loss of life.

## To prevent circuit breaker failure in your existing distribution system, the following is recommended:

- A proper preventive maintenance program at your facility.
- A routine visual inspection of your existing systems.
- A routine thermal inspection of your existing systems.
- Exercise existing breakers at least once a year to ensure they open and close when needed and to identify/correct any deficiencies ahead of time.
- Consider whether some breakers may also require lubrication.  
(Note: *In this case, use only lubricants approved by the OEM.*)
- Calibrate breakers to ensure they open at the correct current setting and prescribed time limits.
- Review CSA 463-18 electrical maintenance standard

For more on replacement products for your existing switchboard, panelboard or motor control center, contact RS Breakers & Controls. [www.rsbreakers.com](http://www.rsbreakers.com);  
Phone: 866-980-7376 | Cell: 306-502-2544

\*Did you know RS Breakers & Controls follows NETA & PEARL Standards for reconditioning? \*

