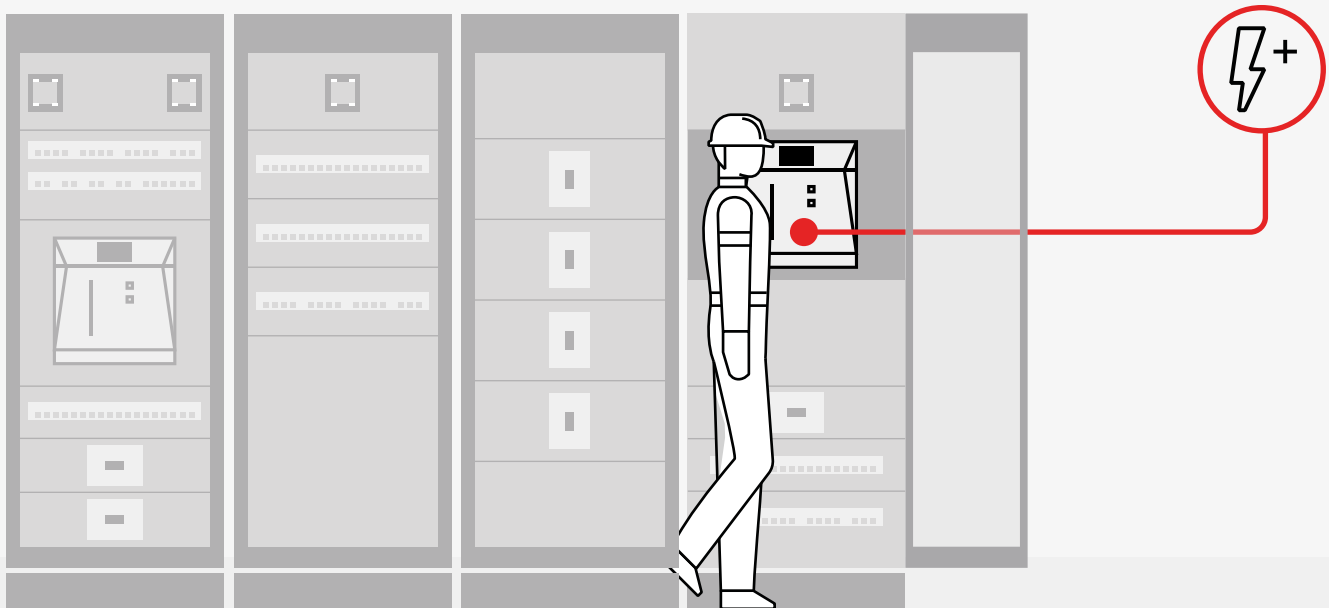


PRODUCT NOTE

SACE Emax 3

Predictive maintenance



The predictive maintenance feature in Emax 3 significantly enhances maintenance optimization by continuously monitoring and analyzing the circuit breaker’s performance.

This feature ensures that you always have access to the estimated dates when maintenance operations are necessary based on its actual usage patterns.

By embedding a sophisticated algorithm within the circuit breaker, it can accurately predict maintenance needs by evaluating key parameters such as real-time temperature and other dynamic measurements.

In addition to monitoring operational parameters, the predictive maintenance algorithm also takes into account environmental conditions such as ambient temperature, humidity, and dust levels. By incorporating these external factors,

the system enhances the accuracy of its predictions, ensuring that maintenance schedules are not only based on internal usage but also on the broader context in which the circuit breaker operates.

This proactive approach helps in preventing unexpected failures, extending the lifespan of the equipment, and ensuring reliable operation.



RELIABLE: ensuring maximum service continuity for the electrical system through comprehensive sensing capabilities and power management strategies.

The algorithm is directly embedded inside Ekip Aware trip unit, without the need for a cloud platform. Predictive data is always available on HMI touchscreen, EPiC mobile app, Ekip Connect software, and through communication protocols.

Whenever maintenance is conducted on the circuit

breaker, the user must document that the maintenance has been completed in Ekip Connect.

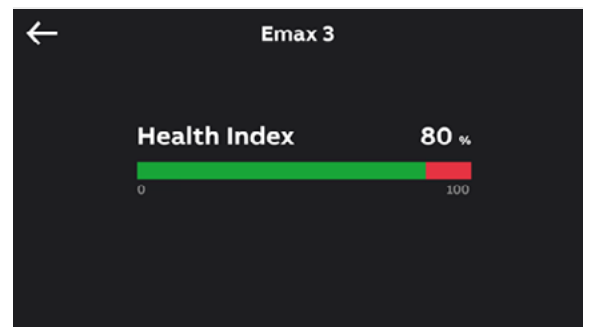
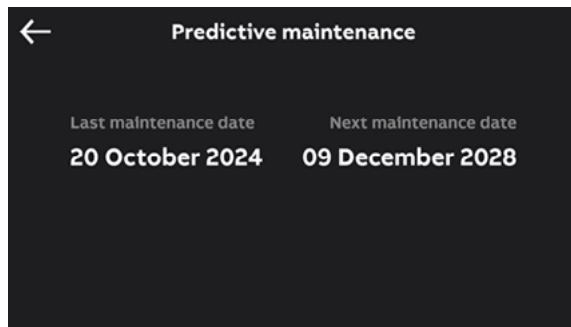
The algorithm will then update the date for the next maintenance. This next maintenance date encompasses both the first and second levels of maintenance in a single schedule.

Variables enabled by this feature:

Parameter	Description
Next maintenance date	Estimated date on when maintenance activities on the circuit breaker will be required according to actual pattern usage and environmental condition.
Health Index	Representation of the current health status of the circuit breaker in percentage. A higher percentage indicates better operational condition.

Predictive maintenance feature must be purchased during factory order and the ordering code already includes the installation of internal

temperature sensors considering that real time internal temperature of the circuit breaker is an input of the algorithm.



Benefits



- REDUCE DOWNTIME:**
 by knowing when something might go wrong, you can schedule repairs during times that won't disrupt your operations, avoiding unexpected stops.



- OPTIMIZE MAINTENANCE SCHEDULING:**
 Instead of sticking to a fixed maintenance schedule, predictive maintenance tells you the best times to perform maintenance based on real-time data. This ensures you only do maintenance when it's needed.

Knowing exactly when maintenance is required helps you allocate your maintenance



nance team and resources more efficiently, so they're not wasting time on unnecessary tasks.

- OPTIMIZE MAINTENANCE COSTS:**
 fixing small issues before they turn into major problems can save a lot of money on repairs and extend the life of your equipment.

Overall, predictive maintenance helps you keep your equipment running longer, reduces unexpected downtime, and saves money by preventing major repairs and managing resources more effectively.