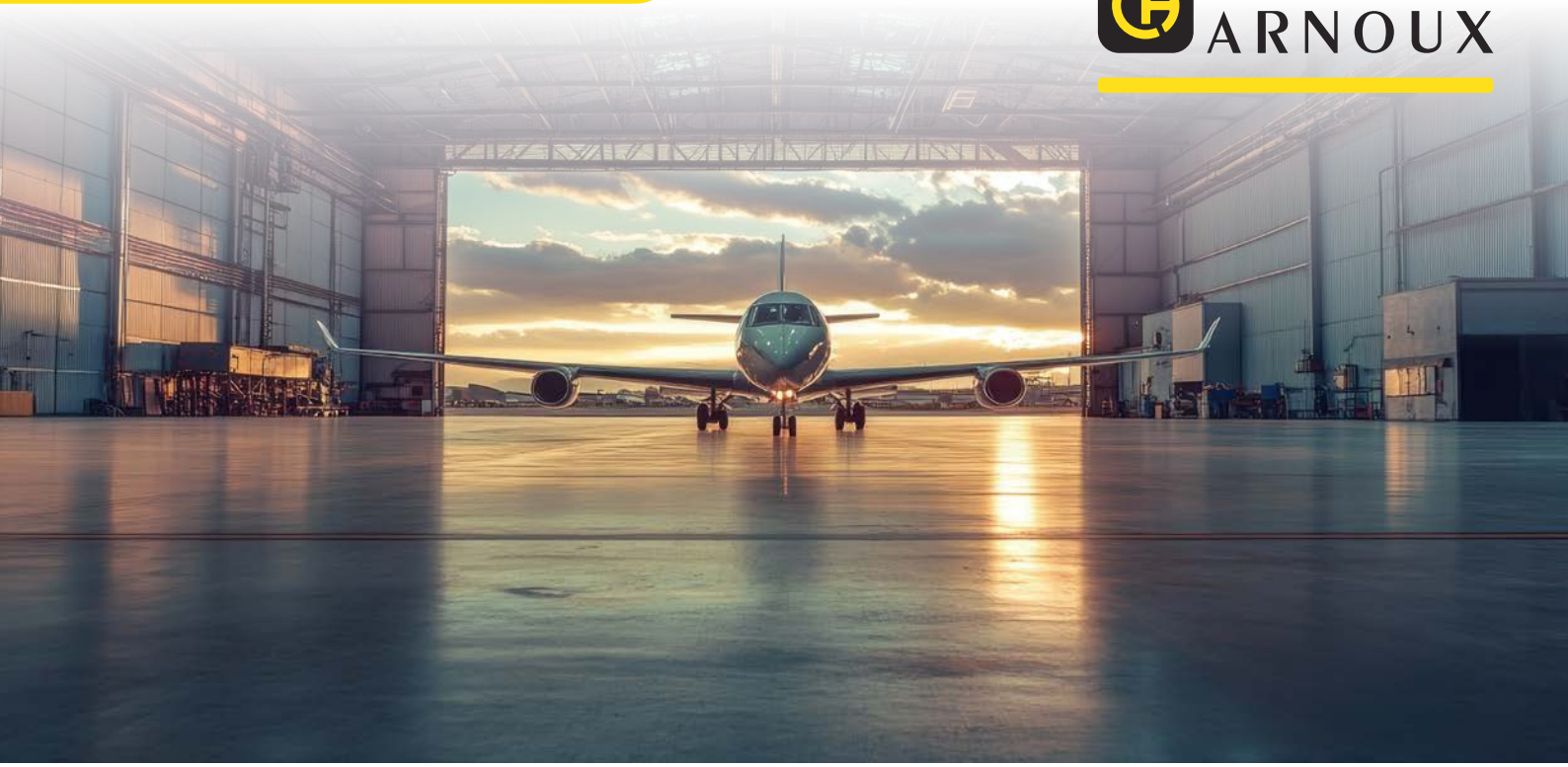
Customer testimonial
Maintenance manager, aircraft hangar

CHAUVIN ARNOUX



"We avoided a total blockage of the hangar door."

Context

"As the maintenance manager for an aircraft hangar, I know that it is crucial to ensure the optimal and safe operation of all equipment: motorized doors, ventilation systems, heating, electricity, fire safety, intrusion detection, etc. It's a demanding environment where every detail counts, especially for the hangar doors, which must open and close without interruption, 24/7."

Power and energy quality analyser, Qualistar Class A, CA 8345

Problem

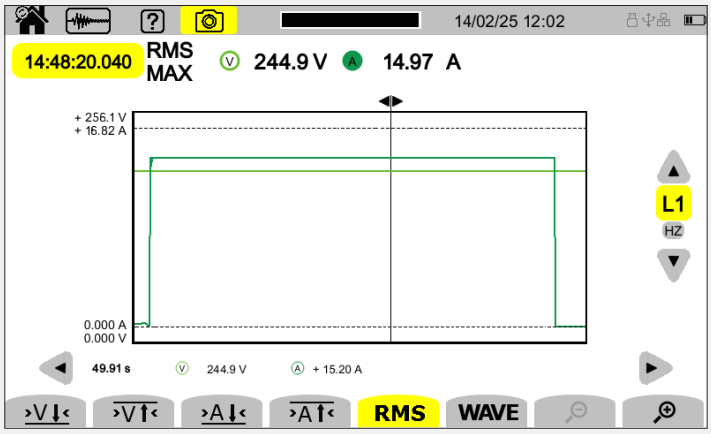
"Despite regular preventive maintenance in accordance with the manufacturer's recommendations, including weekly checks, we were faced with a recurring problem: the door would jam randomly, making its use unpredictable. One side of the door would get stuck, making it impossible to lower. On the mechanical side: No problems. We were losing time and availability, and risked a complete shutdown."

Solution

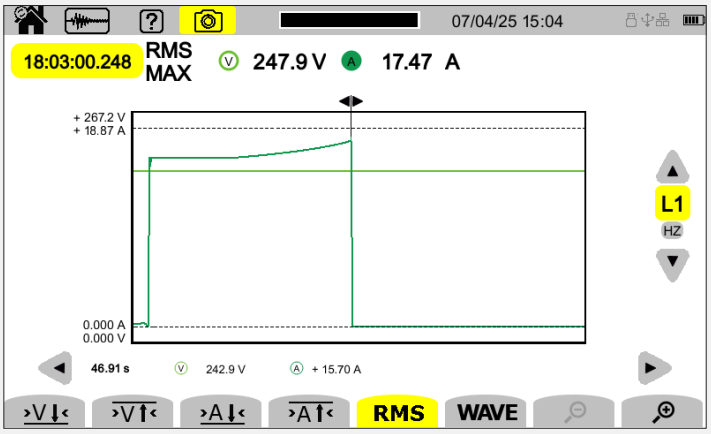
"Thanks to our team's experience and the use of the Qualistar Class A power and energy quality analyser, CA 8345, we were able to accurately record and analyse electrical energy variations at the door motor. We identified a significant increase in current during friction in the slide rails. This data enabled us to implement a simple and effective solution: the installation of a circuit breaker set to a value slightly higher than the nominal current. As soon as the current exceeds this threshold due to abnormal friction, the circuit breaker trips automatically, preventing the door from jamming completely."

The measurements were taken using a power and energy quality analyser, the Qualistar CA 8345. We operated the door repeatedly. When friction occurred at the door's sliding rails, the measurements showed a significant increase in the current value.

The technician decided to install a circuit breaker with a value slightly higher than the door motor's rated operating current. If the fault occurs, the current will increase, the circuit breaker will trip and prevent the door from jamming.



Screen 1: Normal operation



Screen 2: Fault with increase in current and tripping of the circuit breaker

Conclusion

This solution was possible because there was very little difference between the peak current at the start-up (overshoot) and the nominal current of the door motor.

As the circuit breaker prevented the door from jamming, the technician can realign it with a simple intervention.

This analyser was used to record and analyse the current parameters.

Inrush measurement with the CA 8345

- 100 ms pre-triggering at inrush to observe all current values at half-cycle for greater accuracy
- Once configured, recording with the CA 8345 is completely automatic as soon as the motor is switched on.
- Viewing of the entire recording with zoom capability.

The range of network analysers includes the CA 8345, which is Class A

For a complete diagnosis of voltage quality, the Qualistar CA 8345 complies with the IEC 61000-4-30 Class A standard. It is simple and intuitive to use.

Suitable for the needs of inspection and maintenance services, all Qualistar devices are designed to quickly check network quality and easily exploit the results.

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