

Infrared Thermography Inverter Inspections

Thermography expertise is part of the PULSE predictive maintenance offer

Framatome's infrared thermography (IRT) testing helps you to achieve your inverter inspection objectives through non-destructive means, using a thermal camera to detect anomalies and identify risk areas otherwise invisible to the naked eye, allowing for preventive maintenance and extending equipment life.

Challenge

Inverters are composed of several sub-assemblies with each its own utility. It is essential to ensure the proper functioning of each module, its components and the various connection points. It is often very difficult to detect anomalies with the naked eye. An unidentified problem, not caught in time, can lead to breakdowns, accidents, short circuits and high repair costs.

Solution

Framatome uses IRT, an imaging technique that reveals the temperature variations of an object or surface. Our thermal camera can detect thermal anomalies invisible to the naked eye. IRT identifies risk areas, allowing for optimized preventive maintenance and more efficient maintenance interventions, reducing hazards and increasing equipment lifespan. This technique also contributes significantly to improving the safety of equipment and its availability through detection of overheating, short circuits or fire risks.

Our IRT experts put their consulting expertise at your service, analyzing results, establishing accurate diagnoses and offering adapted solutions.



Thermography in the process of being carried out on an inverter

Customer benefits

- Expertise carried out by an experienced team with a specific methodology and high-precision equipment
- Detected anomaly classification based on associated functional risk and probability of risk occurrence
- Detailed and customized report with interpretation of results and recommendations for corrective actions

Infrared thermography expertise is part of the **PULSE predictive maintenance offer**, a range of services aimed at monitoring the health of critical components of instrumentation & control systems. For more information on the PULSE offer, please scan the QR Code.



Features

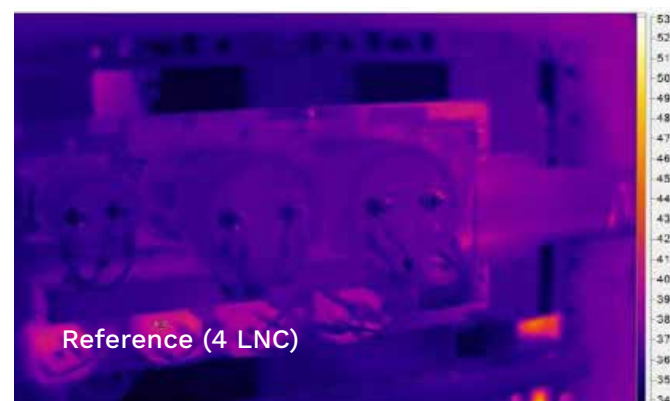
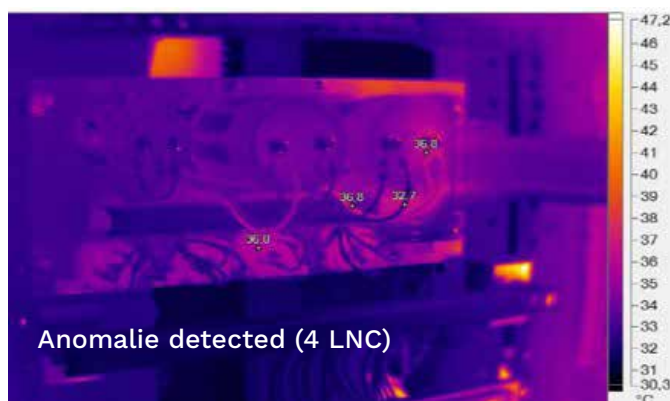
- Technician team specializing in inverters
- On-going (MG30 only) or off-line interventions, depending on operating constraints
- All measurements carried out while in full operation, without disturbances
- Possibility of controlling 1 to 7 inverters per section
- Comprehensive thermography of inverter (excepting parts covered or inaccessible for safety reasons)
- Electronic board component anomaly identification using comparison to expected standard state
- Analysis by subset carried out by an UPS System Manager, with classification of anomalies on scale of severity from 1 to 9
- Establishment of a unit zero point to serve as a basis for comparison during next thermographic checks
- Possible patch integration into Framatome's next schedule maintenance service

Examples of detected anomalies:

Warmer than expected link detection



Cold resistance detection indicating possible power problem with functional consequences



Key Figures

Control of **1 to 7** inverters per section.

More than **50** of expertise and maintenance on inverters in the French fleet.

Your performance
is **our everyday commitment**

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