



SATELIT[®] 3 / STORMSAT

Maintenance manual

Ref : *PDASAT3N25E / 45E / 60E - STORMSAT25E / 45E / 60E*

SATELIT[®] 3 and STORMSAT were designed around a hull in 304L stainless steel to ensure a high mechanical resistance as well as the corrosion and chemical agents (hydrocarbons, acids...). In order to ensure optimum ESE working, it is recommended to proceed to a preventive maintenance.

Cleaning of the photovoltaic cells:

This ESE lightning arrester is equipped with 6 photovoltaic cells in order to recharge the battery which supplies the internal electronic circuit.

These solar cells have an epoxy and anti-UV coating and are positioned at an angle of 60°, to avoid the atmospherical pollutions to join.

Nevertheless, it is recommended to proceed to a cleaning of the modules every 3 years.

In some cases, in a « severe » environment, in presence of fine and sticky particles (plaster, cement, black smoke...), it is necessary to clean the photovoltaic cells more often. This frequency is to determinate by the user regarding to the environment of the installation and the site activity.

The cleaning of the cells consists in passing a soft cloth soaked in water on the module surface without pressing too hard in order to eliminate all residues that could affect their performance.

If a solar cell is damaged, a replacement can be made in our workshops.

Battery control:

The Satelit3 lightning arrester battery is Ni-MH type. Expected lifetime is 1 000 cycles (charge/discharge). It is superior to 6 years of a constant charge at 20°C and at 3 years at 45°C.

During preventive maintenance of the ESE, it is recommended to replace the battery every 6 years and when this one is placed in a severe environment, every 3 years.





In case of intermediate intervention, the operator should measure the battery voltage which should be superior to 5V. Proceed to the replacement of this one, if the voltage is inferior to 5V.

The battery replacement should be done in a same way.

Characteristics:


- Nominal voltage : 4,8 V
- Nominal capacity 800 mA/h

Nota: This equipment has been tested according to the standards in force and in compliance with the required environment tests. Nevertheless, before any use in severe environment (high temperature, corrosive atmosphere, etc.) contact the manufacturer in order to ensure this product is in compliance with your need.

TEST PROCEDURE FOR SATELIT® 3 LIGHTNING ARRESTORS

Before reassembling the lightning arrester on its support, check its working with **TESTS3N** tester which has been specifically designed to check the **SATELIT®3** new generation lightning arrestors working, testing it by radiofrequency (refer to the use notice of **TESTS3N** tester).

Before any use, check that the battery is correctly connected. Control that the tester number is the same as the associated lightning arrester to test.

1. Press on  during 2 seconds.
2. The four led's lights up indicating the positive result of the autotest: the tester is now operational.
3. Function 1 flashes during test and communication step with the lightning arrester.
4. **The four led's lights up to indicate that the lightning arrester is operational: the test is positive.**
5. No indicator lights: Tester 9V battery should be replaced.
6. Function 1 lights up alone: the communication with the lightning rod could not possible.
7. Function 2 lights up alone: the identification of the lightning rod failed.
8. Function 3 lights up alone: the lightning arrester is not operational, contact DUVAL MESSIEN.





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FREQUENTLY ASKED QUESTIONS

- What to do if no indicator lights up at startup ?

Check that the battery is present in its compartment and correctly connected. If necessary, replace the present battery by a new one.

- What to do if only LED 1 is positive at the end of the test ?

You should be sure that the distance between the lightning arrestor to test and the tester is inferior to 100m and that there is no physical obstacle between both (building, metal structure...). In case of doubt, get closer to the lightning rod and if several **SATELIT®3** lightning arrestors are installed, be sure that it is the right serial number.

- What to do if only LED 2 is switched on ?

It means that the communication with the lightning arrestor went normally but that the received serial number is not the expected number. You should contact DUVAL MESSIEN.

In presence of several **SATELIT®3** lightning arrestors, get closer to those you have to test and be sure you have tested the right lightning arrestor (serial number).

- Should the tester be calibrated periodically ?

This tester does not need any particular calibration. In case of no working or doubt a checking can be done in the workshop.

For any further question, you can contact us :

- By mail : contact@duval-messien.fr
- By phone : +33(0) 1 60 18 58 70



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System of certified management

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DESCRIPTION

COMPANY IDENTIFICATION

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