APLICACIONES TECNOLÓGICAS | LIGHTNING & EARTHING

DAT CONTROLER® REMOTE

Early streamer emission air terminal. Certified, with remote testing & autodiagnostic features.

WE PROTECT

WE CONNECT

WE ALERT

at3w.com

Early streamer emission air terminal.
Certified, with remote testing & autodiagnostic features.

ESE Air Terminal DAT CONTROLER® REMOTE

Certified product conforming to the latest standards.

In addition, the **DAT CONTROLER® REMOTE** Air Terminal goes beyond the standards, with the following characteristics:

- **Certified intense current stress tests, endorsing its correct functioning after repeated high energy lightning discharges.**
- **Certified functioning in intense rain conditions.**
- **Daily autodiagnostic and connectivity features: Autoevaluation of status with remote data transmission of autotest results.**
- **Certificate for use in explosive athmospheres (ATEX).**
- **Certificate of compliance with the standards of Electromagnetic Compatibility (EMC).**

DAT CONTROLER® REMOTE protects people and goods against the direct effects of atmospheric electrical discharges, with maximum guarantees.

DAT CONTROLER® REMOTE
Standard adherence

DAT CONTROLER® REMOTE bases its functioning on the electrical characteristics on the approximation of lightning to earth, providing a controlled discharge point within its protection radius.

DAT CONTROLER® REMOTE has obtained the conformity certification with the standard UNE 21.186:2011 “Protection against lightning: Early Streamer Emission Air Terminals” & analogous (NFC 17-102:2011, NP 4426:2013, UNC-1185 etc).

The standardised characteristics that allow for the calculation of the protection radius for an Early Streamer Emission Air Terminal is the advance time parameter in the ESE (ΔT), whose maximum effective value is 60 microseconds.

Early Streamer Emission Air Terminals, adhering to the current standards, should be submitted to the consecutive testing of the same sample. These consist of aging and current tests, prior to the test for advance time, which guarantees that the product continues to maintain its principal characteristic (its advance time), even after suffering wearing and high energy discharges.

1 Salt mist test

2 Sulphurous humid atmosphere test

3 Current withstand test 3x100 kA (10/350 µs)

4 Advance time test

Consecutive testing of the same sample according to annex C of UNE 21186:2011

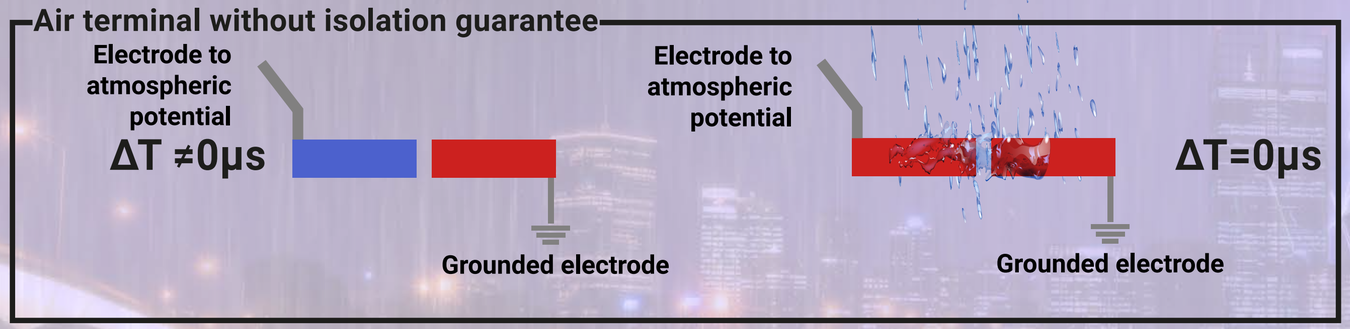
DAT CONTROLER® REMOTE
Validated beyond the standards for ESE air terminals.

Certificate of correct performance under heavy rain

The importance of isolation:

Early Streamer Emission air terminals need two electrodes: one of them grounded and the other one connected to atmospheric potential. They must remain isolated from each other.

Rain, ice, snow, etc. can connect the electrodes of devices that don't offer an isolation guarantee, short-circuiting the triggering device. Hence, the air terminal would lose its main characteristic (ΔT), drastically reducing its protection area.

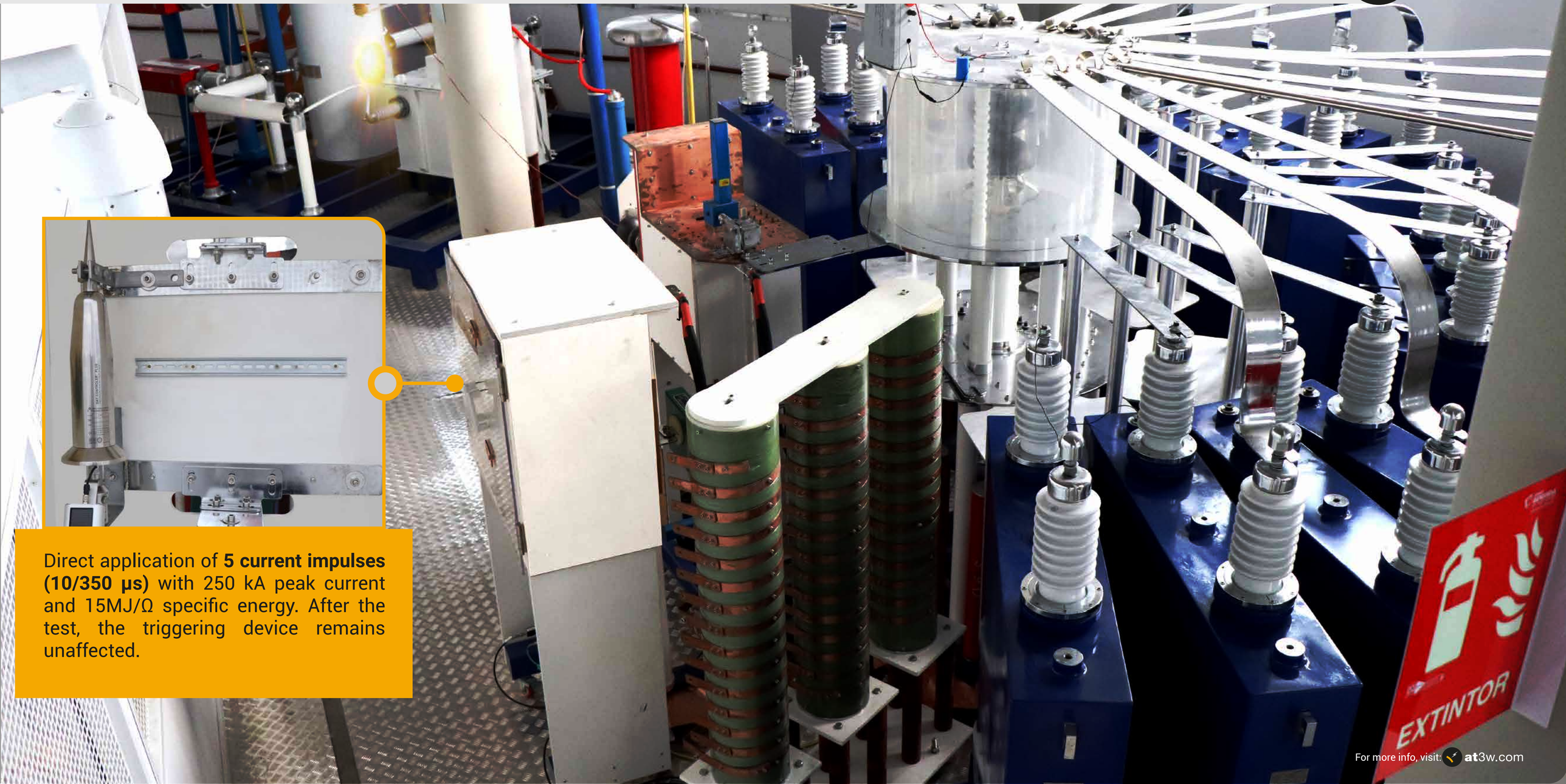


15µs ≤ ΔT ≤ 60µs

DAT CONTROLER REMOTE® patented design avoids rain to connect the external metallic armature, which should be at atmospheric potential, with the grounded metallic axis.

DAT CONTROLER® air terminals have a certificated insulation above 95% (IEC/EN 60060-1), thus guaranteeing the correct performance of the device and therefore its protection area in any weather condition.

Withstand current: 20 impacts of 200 kA + 5 impacts of 250 kA (10/350 µs)



Direct application of **5 current impulses (10/350 µs)** with 250 kA peak current and 15MJ/Ω specific energy. After the test, the triggering device remains unaffected.

AENOR Certification Stamp

AENOR

Producto Certificado

058-000005

DAT CONTROLER® REMOTE is a certified product through AENOR, the Spanish National standards association, symbol of third party product quality and safety. The AENOR certification implies a periodic and continued testing of product samples by AENOR technicians in official independent laboratories.

Manufactured according to **ISO 9001** and following **ISO 14001** environmental management standard.

Autodiagnose and connectivity (IoT)

The **REMOTE** device allows **the daily autodiagnosis** of the ESE air terminal without the need to disassemble the terminal or the requirement of any means of auxiliary elevation

The result of the autotest is sent by M2M communication to a receptor device (phone, tablet, computer). The information can be viewed from a website along with other personalized notifications, making the appropriate preventive and corrective maintenance much easier.

Conformity with 1995/CE R&TTE Radiocommunications and Telecommunications terminal equipment, standards EN 60950:2006, EN 301 489-1: 2011. EN 301 489-7:2011.

DAT CONTROLER® REMOTE
ESE Advance times and protection radii.

The advance time, the main characteristic of an ESE air terminal must be calculated according to annex C of the standard **UNE 21.186:2011.**

Advance times in the early streamer emmision **DAT CONTROLER® REMOTE** have been calculated with a double protection factor, obtaining the following certified results:

Ref.	Model	Certified ΔT
AT-2515	DAT CONTROLER® REMOTE 15	15 µs
AT-2530	DAT CONTROLER® REMOTE 30	30 µs
AT-2545	DAT CONTROLER® REMOTE 45	45 µs
AT-2560	DAT CONTROLER® REMOTE 60	60 µs

The protection radii (metres) for different heights of the air terminal above the element to protect are calculated for every level of protection in the attached table:

Protection radii (metres) of the air terminal according to standards UNE 21186, NP 4426, NFC 17102 and UNC 1185, etc.

UNE 21186 NP 4426 NFC 17102 UNC 1185	h/mt	DAT CONTROLER® PLUS AT-1515	AT-1530	AT-1545	AT-1560
		DAT CONTROLER® REMOTE AT-2515	AT-2530	AT-2545	AT-2560
Level IV	2	20	28	36	43
	4	41	57	72	85
	6	52	72	90	107
	8	54	73	91	108
	10	56	75	92	109
Level III	2	18	25	32	39
	4	36	51	64	78
	6	46	64	81	97
	8	47	65	82	98
	10	49	66	83	99
Level III	2	15	22	28	35
	4	30	44	57	69
	6	38	55	71	87
	8	39	56	72	87
	10	40	57	72	88
Level I	2	13	19	25	31
	4	25	38	51	63
	6	32	48	63	79
	8	33	49	64	79
	10	34	49	64	79

APLICACIONES TECNOLÓGICAS | LIGHTNING & EARTHING

LOCAL STORM DETECTION

AIR TERMINALS AND ACCESSORIES

EARTHING

EXOTHERMIC WELDING

TRANSIENT OVERVOLTAGES

PERMANENT OVERVOLTAGES

APLICACIONES TECNOLÓGICAS S.A.

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