

# Lightning Rod $\Delta$ ADVANCE<sup>+</sup>ESE

Tests according  
PRODUCT  
CERTIFICATION  
Regulations  
for ESE  
Lightning Rod

Lightning Rod  $\Delta$ ADVANCE ESE

## Protection Guarantee

The lightning rod  $\Delta$ ADVANCE ESE has successfully passed the tests based on the UNE 21186, NFC 17102 and NP 4426, for Early Streamer Emission lightning rod.

TESTS

### \* DIMENSIONAL

Ensures that the dimensions are standardized.

### \* SALINE MIST AND HUMID SULPHUROUS ATMOSPHERE

Certifies resistance in corrosive environments.

### \* IMPULSE WITHSTAND CURRENT (200 kA - 10/350 $\mu$ s)

Ensures its functioning after several lightning strokes.

### \* ADVANCE TIME

Guarantees the protection radii.

## Security Factor

Radii protection calculated based on the CTE, UNE 21186, NFC 17102 and NP 4426 standards, applying a minimum Security Factor of 10 microseconds.

## Incorporation of New Technologies

As a result of investigations made and the R + D projects, the lightning rod  $\Delta$ ADVANCE ESE incorporates the following new technologies:

### • SAT - STABILIZATION OF AVANCE TIME

It achieves a maximum deviation of 5% in the advance time performed according to Product Certification Regulations, which guarantees the stability of the lightning rod.

### • FBD - FORCED BLOW DEIONIZATION

Allows quick deionization arc chamber, which ensures that the lightning rod is in perfect condition to capture a new discharge.

### • IAW - INSULATION ASSURANCE WATER

Maintains permanently isolated the electrodes of the lightning rod which have to be at a different potential; ensuring lightning rod operation in extreme wet conditions.

### • EOA - EXTENSION OF ARC

Maintains proper tension between the electrodes of the lightning rod that are at different potential, ensuring its perfect running.



## RADI PROTECTION CHART

Protection Level	h	ADVANCE <sup>+</sup> A1	ADVANCE <sup>+</sup> A2
Level 4 D=60mt	2	32	44
	4	62	85
	6	80	107
	8	82	120
Level 3 D=45mt	2	25	39
	4	50	78
	6	70	97
	8	71	98
Level 2 D=30mt	2	20	34
	4	42	68
	6	55	87
	8	56	87
Level 1 D=20mt	2	18	32
	4	34	63
	6	40	80
	8	40	80

Protection Radii in meters according: CTE SUB, UNE 21186, NFC 17102 and NP 4426.

h = height of the lightning rod relative to the plane to be protected.

