



## Early Streamer Emitter



[www.lpsfr.com](http://www.lpsfr.com) & [www.ellipsese.com](http://www.ellipsese.com)

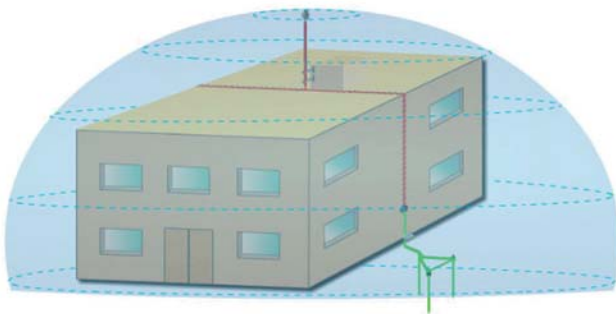


ELLIPS Early Streamer Emission (ESE) lightning rod is the result of over 10 years of research and laboratory experiments and field tests.

Combining advanced materials and technologies, ELLIPS ESE lightning rod is thought out to optimize the whole of your lightning protection system. Each ELLIPS ESE lightning rod can be tested by wired-controlled tester or remote-controlled tester (ELLIPS Contact options).

ELLIPS aesthetics and colors allow its integration within all possible drafts and structures (8 colors available - not effect on operation).

We manufacture the ELLIPS ESE lightning rods range and accessories exclusively in France.



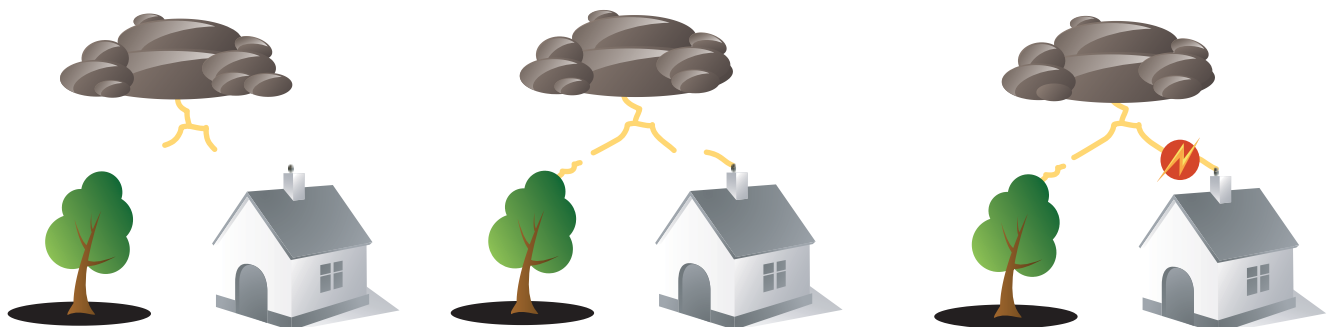
ELLIPS ESE lightning rod is inspired by recent advances in our knowledge of lightning, electromagnetism, high voltage and fluid mechanics effects...

The natural ionization (spark-over) is enhanced by over ELLIPS system independently any energy source. ELLIPS ESE lightning rods trigger spark-over in advance and become the preferential impact point.

Our unique and patented system is composed without any electronic or mechanical component which would prove too fragile and unreliable.

The simplicity of its design and operation combined with its qualitative manufacture and assembly allow us to provide every ELLIPS lightning rod with a 15 year warranty.

ELLIPS ESE lightning rods coloration is an aesthetic option and has no effect on the operation of the lightning protection system.



PHASE 1  
1. Natural tracer

PHASE 2  
2. ELLIPS triggering spark-over in advance

PHASE 3  
3. ELLIPS captures the lightning strike

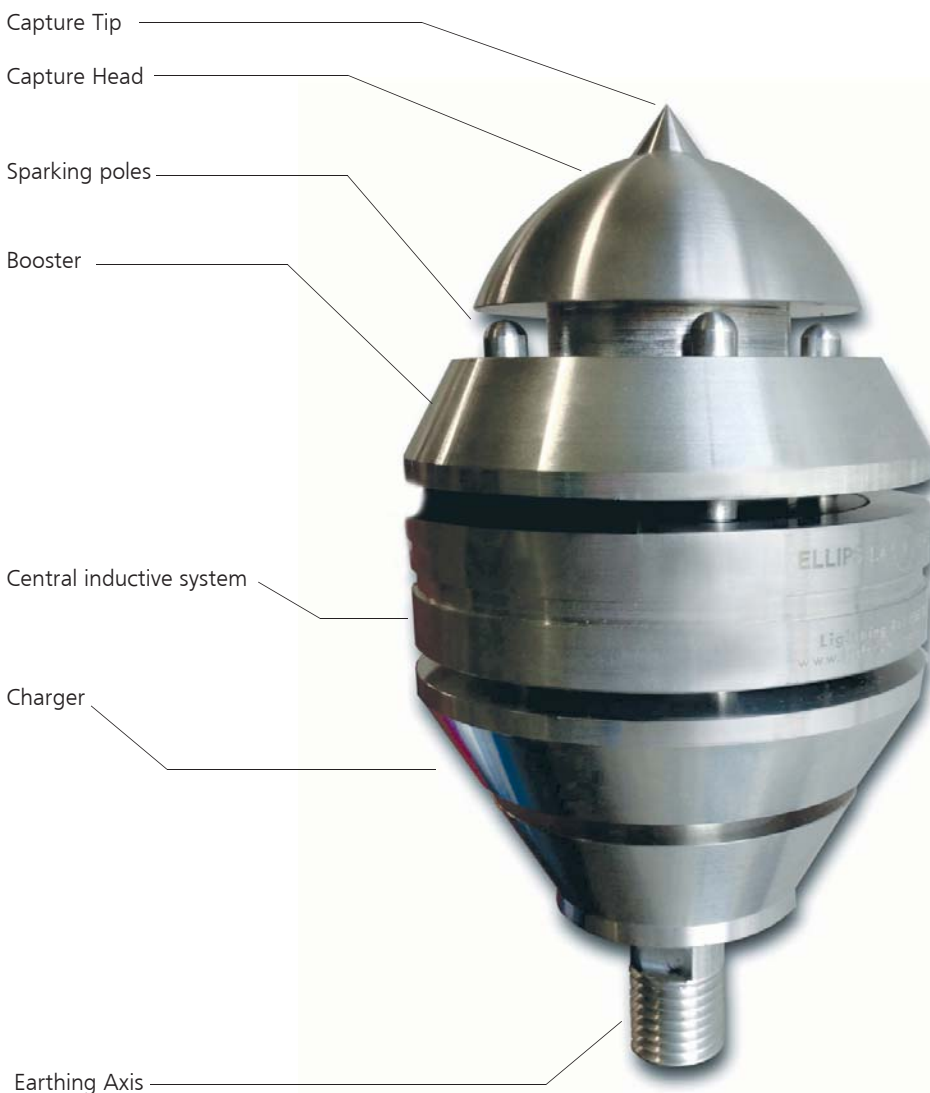


## ELLIPS SYSTEMS

ELLIPS triggering system is issued from our experiences and laboratory tests. We chosen one aluminium alloy to take advantage of its mechanical, electrical and sustainable properties(better than copper or inoxidable steel and cheaper).

We chosen to create one polymeric material for the same reasons. This polymer part contains the inductive system we created (patented technology) to increase natural ionization and create large overvoltage.

We describe with scheme below the operational system: ELLIPS create the necessary and sufficient dispositions to triggers sparks before natural triggering to capture lightning strikes surrounding .



### 3 STEPS:

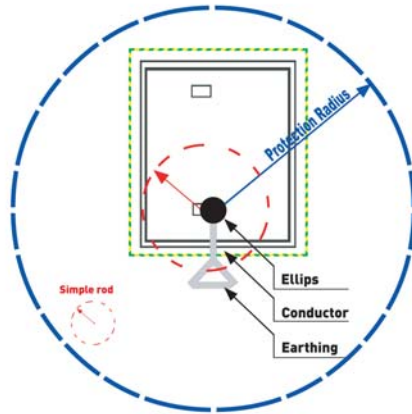
- ▶ **ELLIPS loading:** The part named "Charger" is designed to accumulate the natural ions into the "Central inductive system" (patented). This operation is as quick as the ambient electric field increase and in the same proportion.
- ▶ **ELLIPS huge electrical field creation:** In the same time, with the "Central inductive system" and the "Booster", ELLIPS creates an huge and opposite electrical field to the ambient natural electrical field submitted and stimulates the "Capture Head". The "Sparking poles" are used to increase more the created electric field, so to anticipate more the early triggering.
- ▶ **ELLIPS captation & conduction:** In the same time early triggering is made, lightning strike is attracted to the "Capture Tip", then connected to the "Earthing Axis", the lightning strike is immediately lead to the earth.
- ▶ **ELLIPS system is:**
  - tested and approved
  - autonomous and independent
  - efficient and reliable
  - warranty and testable
  - aesthetic and recyclable



**ELLIPS 1.0**

1.80 Kg

Packaging:  
215x215x220 mm



**ELLIPS 1.2**

1.84 Kg

Packaging:  
215x215x220 mm

**PROTECTION RADIUS**

$\Delta h$ / Level Protection	I	II	III	IV
2	8	11	13	15
3	12	16	19	24
4	17	26	26	34
5	21	29	32	43
10	23	36	37	48
20	24	40	41	55
60	30	48	53	64

Comply with the limit NF C 17102-Interpretation 007 - April 2011

**PROTECTION RADIUS**

$\Delta h$ / Level Protection	I	II	III	IV
2	17	19	23	26
3	25	29	34	39
4	34	39	46	52
5	42	49	57	65
10	44	51	61	69
20	45	52	63	75
60	45	52	65	79

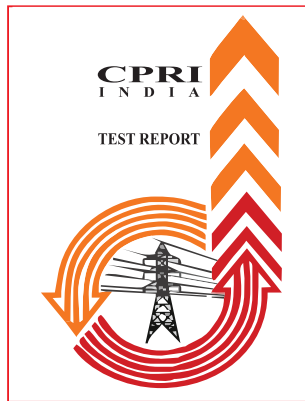
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**ELLIPS 1.3**

1.86 Kg

Packaging:  
215x215x220 mm



**ELLIPS 1.4**

1.88 Kg

Packaging:  
215x215x220 mm

**PROTECTION RADIUS**

$\Delta h$ / Level Protection	I	II	III	IV
2	25	28	32	36
3	38	41	48	53
4	51	57	65	72
5	62	71	81	89
10	63	72	83	92
20	65	74	86	97
60	66	75	90	105

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**PROTECTION RADIUS**

$\Delta h$ / Level Protection	I	II	III	IV
2	32	34	40	44
3	48	52	59	65
4	64	69	78	87
5	79	86	97	107
10	79	88	99	109
20	80	89	102	113
60	80	90	105	120

Comply with the limit NF C 17102-Interpretation 007 - April 2011

# ELLIPS



Lightning Protection Systems France (LPS France) is your expert to find your lightning protection solutions.

LPS France manufactures and proposes the ELLIPS ESE lightning rods range and the ELLEC SP lightning arrestors range.

LPS France designs, manufactures and implements lightning protection systems adapted to all your projects thanks our worldwide extensive of agents and installers.

- ▶ Patented Technologies
- ▶ Manufactured in our factory in France
- ▶ Laboratory validation tests
- ▶ Reliability and robustness proven in extreme conditions
- ▶ Conforms to NF C 17 - 102, UNE 21 - 186, EN 50164 - 1, EN 62305
- ▶ Laser marking
- ▶ Optional wired - Controlled tester or remote - controlled tester available in the whole ELLIPS range
- ▶ No electromagnetic interference ( radar, radio...)
- ▶ ELLIPS range is 100% recyclable.
- ▶ 15 years warranty.

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