# Early Streamer Emitter www.ellipsese.com







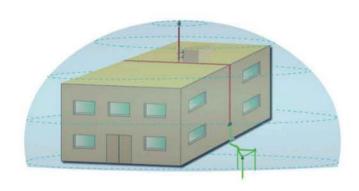


ELLIPS Early Streamer Emission (ESE) lightning rod is the result of over 10 years of research and laboratory experiments and field tests.

Combining advanced materials and technologies, ELLIPS ESE lightning rod is thought out to optimize the whole of your lightning protections 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 our 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 proove 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



PHASE 3

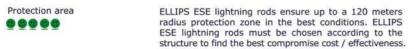
2. ELLIPS triggering spark-over in advance 3. ELLIPS captures the lightning strike



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ELLIPS ESE lightning rod becomes the preferential Protection of open areas impact point in open areas (sports stadium, storage area, uncovered area ...). Frequently, an ELLIPS lightning rod protects a complete property.

Study Lightning protection system study with ELLIPS ESE lightning rods is easy thanks to the flexibility of its implementation.

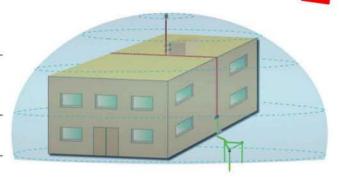
ELLIPS lightning rods implementation is simple. Implementation A thoughtfully designed range of accessories enables easy adaptation on all structures.

Qualification required The installer's qualification for the ELLIPS ESE lightning for implementation rods implementation is classic and is not an obstacle to obtain an excellent lightning protection installation.

> ELLIPS ESE lightning rods and some accessories are available in 8 standard colors. Whatever the building or the structure, ELLIPS blends into its environment. Specific colors are also available at request.

In favor of a large area of protection and ease of implementation ELLIPS ESE lightning rods ensure a low cost solution compared to other solutions.

ELLIPS ESE lightning rods do not require extensive maintenance (ensuring 15 years). Periodic inspections costs are low thanks to a simple protection system.



### **Normalisations / Standards**

Argentine	IRAM 2426
Espagne	UNE 21186
France	NF C 17-102
<b>Macédoine</b>	MKS N.B4 810
Portugal	NP 4426
Roumanie	I-20
Slovaquie	STN 34 1391
RF Yougoslavie	JUS N.B4.810



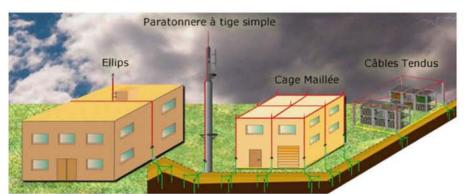
Aesthetics

(Architecture Integration)

**Budget** implementation

Cost of Maintenance

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Ellips	Lightning rod single-point	Meshed cage	Tensioned cable
00000	00000	999	
0000		00000	000
99999	000	99999	999
99999	0000	00000	000
999		99999	9999
00000	•••	00000	0000
0000	99999	00000	000
00000	0000	99999	999
NF C 17-102	NF-EN 62305	NF-EN 62305	NF-EN 62305
Any structure and its environment or open areas	Small size structure (Towers, antennas)	Structure containing computer systems or pyrotechnic materials	Open storage area
	NF C 17-102  Any structure and its environment	single-point  si	single-point  Si



#### **OUR ENGAGEMENTS**

LPS France is engaging over the entire ELLIPS range.



- 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.





## E L L I P S Early Streamer Emitter

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**ELLIPS 1.2** 

1,840Kg

Packaging:

215x215x220 mm

**PROTECTION RADIUS** 

III

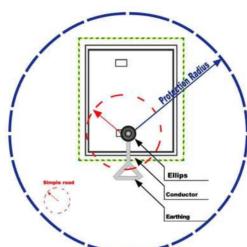
IV

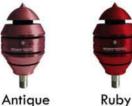
II



Δh Level	ection <b>I</b>	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















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



### **PROTECTION RADIUS**

Level		r	Т	т
Δh Level	ction I	11	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









### **PROTECTION RADIUS**

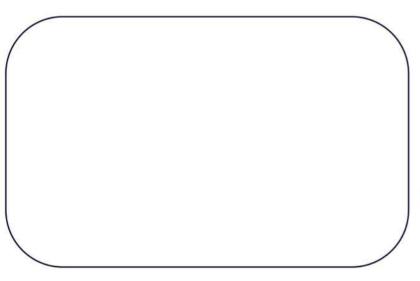
Δh Level	ction I	II	III	IV
2	32	34	40	44
3	48	52	59	65
4	64	69	78	87
5	79	86	97	107
10	79	88	99	109
20	80	89	102	113
60	80	90	105	120



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 protections systems adapted to all your projects thanks our worldwide extensive network of agents and installers.



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