

## TECHNICAL DATASHEET

### CHARACTERISTICS

|                                      |  |      |
|--------------------------------------|--|------|
| Reference                            | 90315                                  |      |
| Designation                          | IONIFLASH MACH® NG15                   |      |
| Durability (No planned obsolescence) | 35 years                               |      |
| Warranty                             | 10 years                               |      |
| Efficiency NF C 17-102:2011          | ΔT                                     | 15μs |
| Insulation IEC 60060-1               | >97%                                   |      |
| Net Weight                           | 1,8kg                                  |      |
| Fastening                            | Triple security on anti-vibration pole |      |

### PERFORMANCES

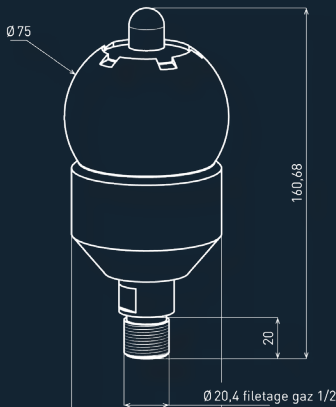
|  |  |                                  |
|--|--|----------------------------------|
| Security of the current flowing IEC 62561  | Electrical and physical continuity from the IONIFLASH® to the earth – Axle 16mm                                    |                                  |
| ESEAT / Simple rod Standard deviation  | σ  | σ (ESEAT) < 0.755 σ (Simple rod) |
| Lightning strike: IEC 62561 / NF C 17-102:2011 (wave 10/350μs)                   | Standard Test  | 100kA<br>214kA                   |
| Functioning for positive and negative lightning strikes                          | Range of detection of the frequency spectrum of lightning (0 to 10MHz).<br>Self-contained triggering of the leader |                                  |
| Early streamer emission spherical technology                                     | New Generation Patent FR2953337  |                                  |
| Reliability of the protection – Repeatability of the answer of the upward leader | Stability of the laboratory tests and in situ tests (Ampère CNRS / In situ France telecom)                         |                                  |
| Safety in extreme climatic conditions  | Direct electrostatic activation with internal and external double spark gaps                                       |                                  |
| Security of the lightning current flowing  | Manufacturing with passed through axle of 16mm diameter  |                                  |
| Resistance to corrosion  | AISI / Solid 316L stainless steel  |                                  |
| Testing device   | Checking with IONITEST® device   |                                  |

### INSTALLATION AND ACCESSORIES

|                                  |  |
|----------------------------------|--|
| Installation                     | Delivered ready to be installed – without electronic components  |
| Connection to the down conductor | Stainless steel or tinplated copper collar   |
| Accessories                      | High safety fastening piece  |
| Documentation                    | Warranty and authentication certificate can be download on <a href="http://www.check.ioniflash.com">www.check.ioniflash.com</a><br>Guide book – Control report |

### CERTIFICATIONS

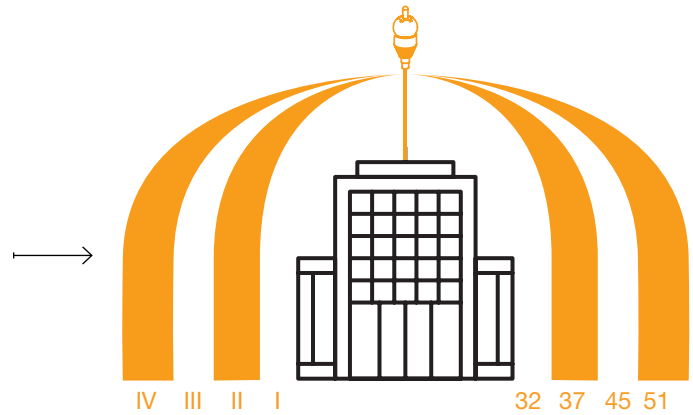
|                      |                                  |
|----------------------|----------------------------------|
| NF C 17-102:2011     | Certificate Bureau Veritas       |
| Qualifoudre (INERIS) | Certificate N° 051168729019      |
| Carbon Footprint     | Carbon Footprint 0933 C240 Ademe |
| ISO 9001/2015        | Certifié ISO 9001                |



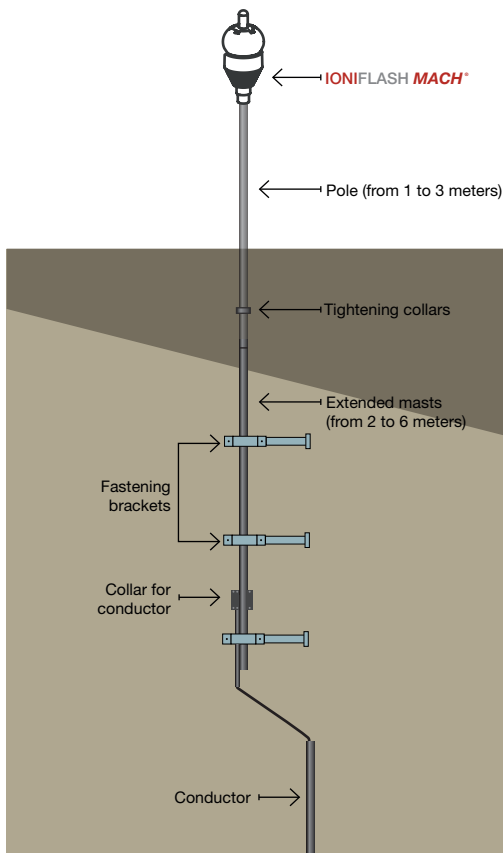
CONFORM TO  
NF C 17-102 : 2011  
IEC 60060-1

## RADIUS OF PROTECTION

| RADIUS OF PROTECTION OF IONIFLASH MACH <sup>®</sup> NG15<br>NFC 17102 (2011) |         |          |           |          |
|--|---------|----------|-----------|----------|
| Height (m)   | Level I | Level II | Level III | Level IV |
| 2  | 13      | 15       | 18        | 20       |
| 5  | 32      | 37       | 45        | 51       |
| 8  | 33      | 39       | 47        | 54       |
| 10   | 34      | 40       | 49        | 56       |
| 15   | 35      | 42       | 52        | 60       |
| 20   | 35      | 44       | 55        | 63       |
| 30   | 34      | 45       | 58        | 69       |
| 45   | 24      | 42       | 60        | 73       |
| 60   |         | 34       | 58        | 75       |



The level of protection is given using NFC 17-102 ed. 2011, or EN 62305-2, or using the FDC 17-108 guide. If the site presents a risk for the environment the protection radius must be reduced of 40%. For a level of protection I++ [cf. 5.2.3.5 NFC 17-102], the radius of protection must be reduced of 40%



## RELIABILITY OF THE IONIFLASH MACH<sup>®</sup>

- Higher efficiency demonstrated
- Double security thanks to the two spark gaps dimensioned to have an operating range adapted to the frequential spectrum of the lightning (0 to 10 MHz)
- Electrical and physical continuity from the IONIFLASH<sup>®</sup> tip to the earth
- Reliable and autonomous device even in extreme climatic conditions
- Support tools for the study and installation (software IONEXPERT 3000<sup>®</sup>, operational tests devices IONICHECK<sup>®</sup>, IONICOUNT<sup>®</sup> impulse counter)
- 10 years guarantee. Lifetime of 35 years.
- 316L stainless steel, protective fairing.
- Lowest carbon footprint 33kg eq. CO<sub>2</sub> / unit
- Net weight: 1,8kg – quick fastening
- Tested in accordance to the standards NFC 17-102 ed. 2011, EN 50164-1, IEC 60060-1, UNE 21186, manufacturing in accordance with ISO 9001: 2015