

EXTERNAL LIGHTNING PROTECTION SYSTEM





Introducing TRIPRO Premium lightning protection product from Trinity Touch, based on the advanced technology, developed by Trinity Touch in collaboration with a French pioneer in the field of advanced lighting protection systems.

Principle & operating

The **TRIPRO** excitation advance is obtained by a device named, "impulse device". Its principle consists in storing electrostatic energy present in the Atmosphere at a stormy cloud approach, to release the ascending discharge excitation in good time.

This device operates at a stormy activity approach by an integrated sensor which measures the surrounding electrical field value.

It provokes then a polarity inversion of the lightning conductor head, creating a sudden amplification of the electrical field in its tip.

TRIPRO features

- Consider the energetic parameter to choose the streamer which has the capacity to become an ascending leader
- Autonomous and clean energy source : Atmospheric electrical field
- Cloud polarity consideration
- Head curve radius optimized to reduce the Corona effect and guarantee the excitation device
- Functioning warranty in any atmospheric condition
- High resistance to the corrosion thanks to its 100% manufacture in 304L stainless steel
- In compliance with NFC 17 102 September 2011

TRIPRO radius of protection

The Early Streamer Emission (ESE) TRIPRO lightning conductor has been tested in laboratories in compliance with NF C 17-102 standard protocol.

These tests have determined an excitation advance from 12µs to 60µs with regard to a simple rod.

SIMPLY SOLUTIONS



Lightning Conductor TRIPRO Range

Better protection area

The TRIPRO radii of protection here below mentioned, are defined for the four Np levels of protection (from I to IV) depending on the height h between lightning conductor tip and the structure highest point to protect.

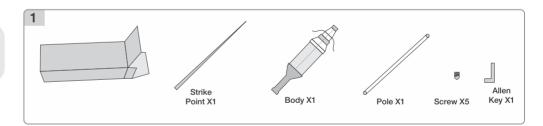
 Δ T: Excitation advance, for the TRIPRO, Δ T = 12,25,45 & 60 μ s

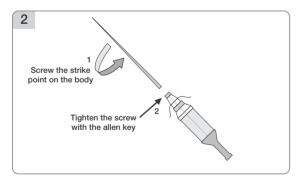
- Np: Level of protection with different severity levels (I to IV) determined by lightning risk assessment. IEC 62305-2 standard,
- h(m): Height between the lightning conductor tip and the highest point to protect.

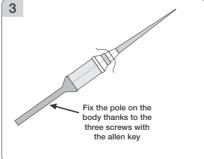


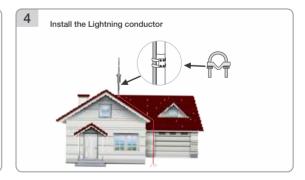
| TRIPRO | TRIPRO 12 | TRIPRO 25 | TRIPRO 45 | TRIPRO 60 |
|--------|-------------|-------------|--------------|---------------|
| h(m) | I II III IV | I II III IV | I II III IV | I II III IV |
| 2 | 11 13 16 19 | 17 20 23 26 | 25 28 32 36 | 31 34 39 43 |
| 4 | 23 27 32 37 | 34 40 46 52 | 51 57 65 72 | 63 69 78 85 |
| 5 | 28 34 41 46 | 42 49 57 65 | 36 71 81 89 | 79 86 97 107 |
| 6 | 29 34 42 48 | 43 49 58 66 | 63 71 81 90 | 79 87 97 107 |
| 8 | 30 36 43 50 | 43 50 59 67 | 64 72 82 91 | 79 87 98 108 |
| 10 | 30 37 45 52 | 44 51 61 69 | 64 72 83 92 | 79 88 99 109 |
| 20 | 32 41 51 60 | 45 54 65 75 | 65 74 86 97 | 80 89 102 103 |
| 30 | 32 42 55 65 | 45 55 68 80 | 65 75 89 101 | 80 90 104 116 |
| 60 | 32 42 57 72 | 45 55 70 85 | 65 75 90 105 | 80 90 105 120 |

Mounting Scheme TRIPRO Lightning Conductor









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