

## TECHNICAL DATASHEET

### CHARACTERISTICS

Reference	90160	
Designation	<b>IONIFLASH MACH® NG60</b>	
Durability (No planned obsolescence)	35 years	
Warranty	<b>10 years</b>	
Efficiency NFC 17-102/2011 C	$\Delta T$	60 $\mu$ s
Insulation IEC 60060-1	>97%	
Net Weight	2.2kg	
Fastening	Triple security on anti-vibration pole	

### PERFORMANCES

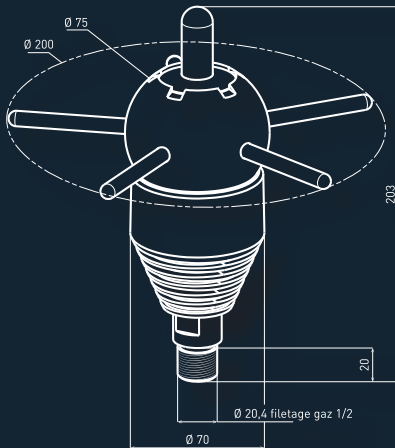
Security of the current flowing IEC 62561	Electrical and physical continuity from the IONIFLASH® to the earth – Axle 16mm	
ESEAT / Simple rod Standard deviation	$\sigma$	$\sigma$ (ESEAT) < 0,28 $\sigma$ (Simple rod)
Lightning strike: IEC 62561 / NFC 17102 (wave 10/350 $\mu$ s)	Standard Test	100kA 214kA
Functioning for positive and negative lightning strikes	Range of detection of the frequency spectrum of lightning (0 to 10MHz). 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 <b>IONITEST®</b> 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> Guide book – Control report

### CERTIFICATIONS

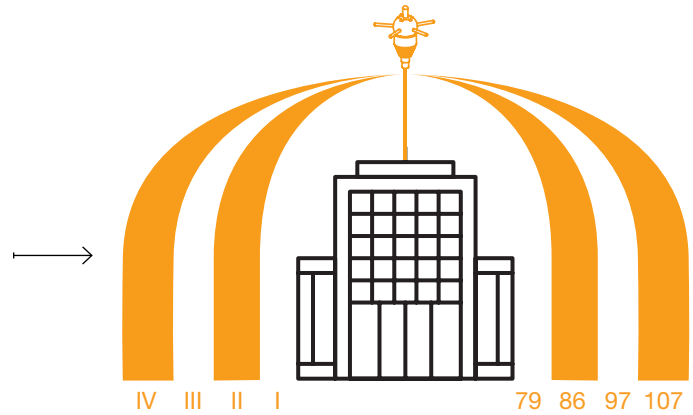
NFC 17102/2011 C	Certificate Bureau Veritas
<b>Underwriter Laboratories (UL)</b>	<b>UL certified N° 20180105-E493082</b>
Qualifoudre (INERIS)	Certificate N° 051168729019
<b>Carbon Footprint</b>	<b>Carbon Footprint 0933 C240 Ademe</b>
ISO 9001/2015	Certificate ISO 9001



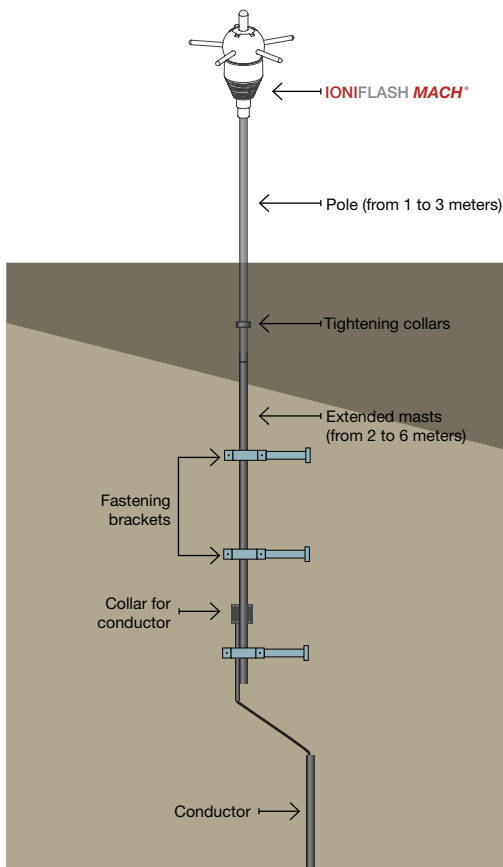
CONFORM TO  
NF C 17-102 : 2011  
IEC 60060-1

## RADIUS OF PROTECTION

RADIUS OF PROTECTION OF IONIFLASH MACH® NG60 NFC 17102 (2011)				
Height (m)	Level I	Level II	Level III	Level IV
2	31	35	39	43
5	79	86	97	107
8	79	87	98	108
10	79	88	99	109
15	80	89	101	111
20	80	89	102	113
30	79	90	104	116
45	76	89	105	119
60	69	85	104	120



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®

- 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® tip to the earth
- Reliable and autonomous device even in extreme climatic conditions
- Support tools for the study and installation (software IONEXPERT 3000®, operational tests devices IONICHECK®, IONICOUNT® impulse counter)
- 10 years guarantee. Lifetime of 35 years.
- 316L stainless steel, protective fairing.
- Lowest carbon footprint 33kg eq. CO2 / unit
- Net weight: 2.2kg – 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