

TECHNICAL DATASHEET

CHARACTERISTICS

Reference	90190	
Designation	IONIFLASH MACH® NG 60 TF	
Durability (without planned obsolescence)	35 years GUARANTEE 10 years	
Efficiency NF C 17-102 (2011)	ΔT	60 μ s
Weight	2.3 kg	

PERFORMANCES

Security of current flow IEC 62 561	Electrical and physical continuity without disconnection of the IONIFLASH axle until the earth \varnothing Axle = 16mm
E.S.E. Standard deviation / Simple rod	σ (ESE) < 0,28 σ (Simple rod)
Lightning impact: IEC 62 561 / NF C 17-102	Standard test = 100 kA
Test realized in 10/350 μ s wave	Realized test = 215 kA
Functioning in positive and negative impacts	Detection range of lightning frequency spectrum (0 to 10 MHz) Autonomous triggering of the leader
Rain conditions insulating test according to IEC 60 060-1 standard	> 97%
Early streamer emission spherical technology	New generation patent FR 2953337
Protection reliability – repeatability of the response of the upward leader	Stability of the laboratory tests and in situ tests (Ampère CNRS/In situ France Telecom)
Security in extreme weather conditions	Direct electrostatic activation with double spark gaps, internal and external
Corrosion resistance	AISI/ Massive 316 L Stainless steel

INSTALLATION AND ACCESSORIES

Installation	Delivered ready to install
Down conductors connection	Stainless steel or tinplated copper collar
Test device (option)	Testing with MACHTEST®
Documentation	Guarantee and authenticity certificate can be downloaded on: check.ioniflash.com Guidebook – final production certificate

CERTIFICATIONS

NF C 17-102 (2011)	Ampère CNRS laboratory
Qualifoudre (INERIS)	N° 051168729019 certificate
Carbon assessment	CARBON ASSESSMENT 0933 C240 Ademe
ISO 9001/2015	N° FR 034743-1 certificate



Qualifoudre
INERIS
N° : 051168729019



CONFORM TO
NF C 17-102 (2011)
IEC 60 060-1

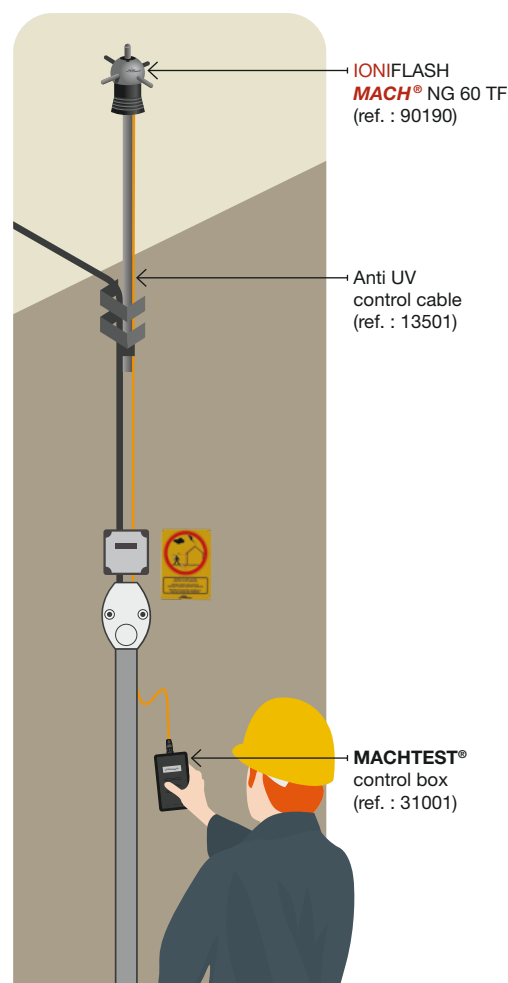
ACCESSORIES

Reference	31001	13501
DESIGNATION	MACHTEST®	7 meters control cable*
FEATURE	LCD Display	UV and rain protection
POWER SUPPLY	3 AAA batteries 1,5 V (supplied)	No
WEIGHT	100 g	≈ 60g/m
DIMENSIONS	115x70x28	Ø 7 mm
GUARANTEE	1 year	10 years

*Cable length adapted on demand, until 100 m

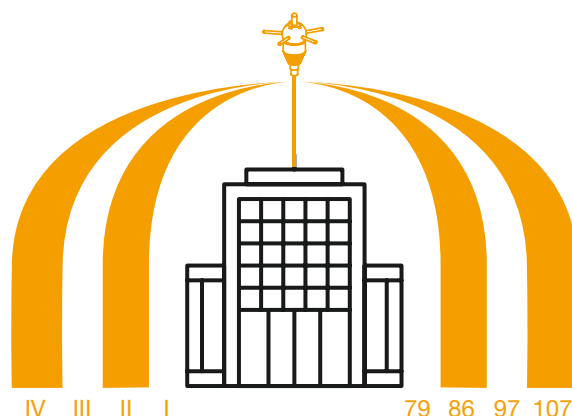
TEST PRINCIPLE

- The cable continuously connected to the ESEAT allows a direct communication.
- For the control of the functioning of the ESEAT, from the ground or the roof, the MACHTEST® control box is connected to the cable.
- With the connection of the MACHTEST®, the control procedure starts automatically.
- At the end of the sequence, the result of the test is directly available on the MACHTEST® control box avoiding all risks of misinterpretation and lack of visibility.
- At the end of the test, the MACHTEST® is disconnected and stored (no elements exposure).



PROTECTION RADIUS

PROTECTION RADIUS OF IONIFLASH MACH ® NG 60 TF / NF C 17-102 (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 determined using NFC 17-102 ed. 2011 Standard, or EN 62 302-2, or using FDC 17-108 guide. If the site may pose a risk for the environment, protection radius must be reduced of 40%. For a level of protection I++ [cf.5.2.3.5 NFC 17-102], protection radius must be also reduced of 40%.