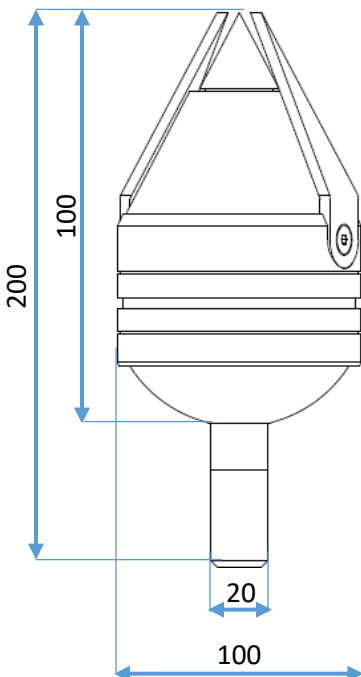




STAR® 210

EARLY STREAMER EMISSION (ESE) AIR TERMINAL

Reference	STAR210
Technical specifications	
Power Δt	10 - microsecond boot time (us)
Lightning shock	Wave 10/350 microseconds
Test 100 kA	NFC 17102
Streamer	<ul style="list-style-type: none"> System technology with controlled priming technology® High impulse voltage
Structure	<ul style="list-style-type: none"> Electromagnetic cage, with electromechanical crimping 2 stainless steel 316 differential fins
Operation	
Ascending Tracer Detection	<ul style="list-style-type: none"> Continuous measurement of ambient natural electric field
Power Management	<ul style="list-style-type: none"> Totally autonomous No external power supply
Maintenance	<ul style="list-style-type: none"> Modular parts interchangeable in factory Dimension - \varnothing 100 x 200 mm - M20 thread Tightening torque
Test system (option)	<ul style="list-style-type: none"> Star Evolution Tester Specific remote control
Impact on the environment	<ul style="list-style-type: none"> 100% recyclable
Guarantee	► 5 years manufacturer
Conditioning	
Packaging	<ul style="list-style-type: none"> Adapted to the size of the STAR Dedicated custom cradles
Size of the box	<ul style="list-style-type: none"> 205 x 103 x 103 mm 100% recyclable
Net weight	1,416 Kgs
Gross weight	1,607 Kgs (with specific box)
Certifications	
Traceability / Control	<ul style="list-style-type: none"> Laser marking or specific engraving Indestructible self-labeling system Authentication by serial number Certified reference to the order
Conformity	<ul style="list-style-type: none"> NFC17102/1995 NFC17102/2009 NFC17102/2011
Customs code	85 36 90 85



Lightning Rod - Air Terminal STAR210®

Early Streamer Emission (ESE).

- **STAR® range.** Lightning Protection.



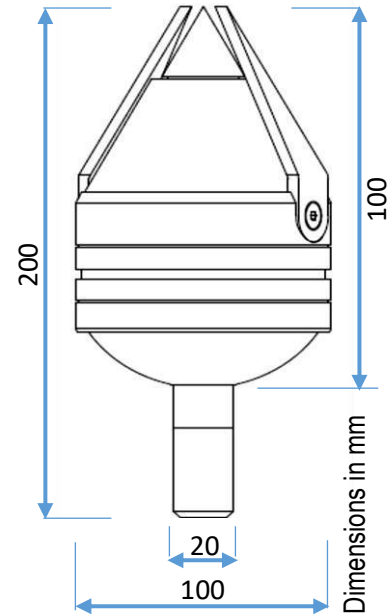
STAR® 210

Reference: STAR210

Description: **Lightning rod - Air Terminal
Early Streamer Emission**

Power: **($\Delta I = 10 \mu s$)**
▶ 2 stainless steel 316 differential fins

Net weight: 1.416 kgs
Gross weight: 1.607kgs (Package included)
Dimensions: 200x100 mm



STAR® 210 - PROTECTION RADIUS EFFICIENCY **+10 μs**

H meters	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
2	8	13	15	17
3	12	19	20	24
4	17	26	34	38
5	21	32	41	49
10	23	37	48	53
20	24	41	52	55

Protection distances in meters

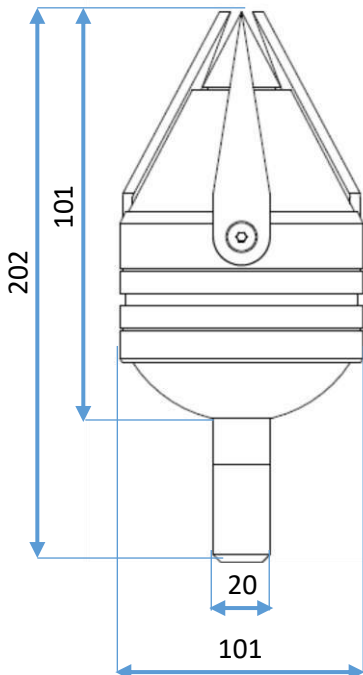




STAR® 325

EARLY STREAMER EMISSION (ESE) AIR TERMINAL

Reference	STAR325
Technical specifications	
Power Δt	25 - microsecond boot time (us)
Lightning shock	Wave 10/350 microseconds
Test 100 kA	NFC 17102
Streamer	<ul style="list-style-type: none"> System technology with controlled priming technology® High impulse voltage
Structure	<ul style="list-style-type: none"> Electromagnetic cage, with electromechanical crimping 3 stainless steel 316 differential fins
Operation	
Ascending Tracer Detection	<ul style="list-style-type: none"> Continuous measurement of ambient natural electric field
Power Management	<ul style="list-style-type: none"> Totally autonomous No external power supply
Maintenance	<ul style="list-style-type: none"> Modular parts interchangeable in factory Dimension - \varnothing 101 x 202 mm - M20 thread Tightening torque
Test system (option)	<ul style="list-style-type: none"> Star Evolution Tester Specific remote control
Impact on the environment	<ul style="list-style-type: none"> 100% recyclable
Guarantee	► 5 years manufacturer
Conditioning	
Packaging	<ul style="list-style-type: none"> Adapted to the size of the STAR Dedicated custom cradles
Size of the box	<ul style="list-style-type: none"> 205 x 103 x 103 mm 100% recyclable
Net weight	1,475 Kgs
Gross weight	1,661 Kgs (with specific box)
Certifications	
Traceability / Control	<ul style="list-style-type: none"> Laser marking or specific engraving Indestructible self-labeling system Authentication by serial number Certified reference to the order
Conformity	<ul style="list-style-type: none"> NFC17102/1995 NFC17102/2009 NFC17102/2011
Customs code	85 36 90 85



Lightning Rod - Air Terminal STAR325®

Early Streamer Emission (ESE).

- STAR® range. Lightning Protection.



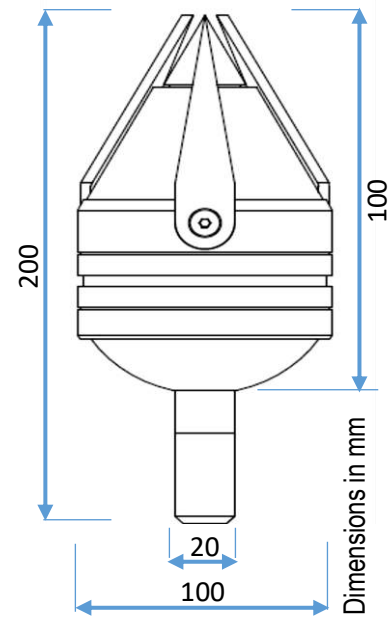
STAR® 325

Reference: STAR325

Description: **Lightning rod - Air Terminal
Early Streamer Emission**

Power: **($\Delta I = 25 \mu s$)**
▶ 3 stainless steel 316 differential fins

Net weight: 1.475 kgs
Gross weight: 1.661 kgs (Package included)
Dimensions: 202x101 mm



STAR® 325 - PROTECTION RADIUS EFFICIENCY **+25 μs**

H meters	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
2	17	23	26	28
3	25	34	37	39
4	31	46	49	51
5	42	57	63	67
10	44	61	70	74
20	45	65	72	77

Protection distances in meters



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LLAMPTECH®

STAR® 645

EARLY STREAMER EMISSION (ESE) AIR TERMINAL



Reference **STAR645**

Technical specifications

Power Δt	45 - microsecond boot time (us)
Lightning shock	Wave 10/350 microseconds
Test 100 kA	NFC 17102
Streamer	<ul style="list-style-type: none"> • System technology with controlled priming technology® • High impulse voltage
Structure	<ul style="list-style-type: none"> • Electromagnetic cage, with electromechanical crimping • 6 stainless steel 316 differential fins

Operation

Ascending Tracer Detection	• Continuous measurement of ambient natural electric field
Power Management	<ul style="list-style-type: none"> • Totally autonomous • No external power supply
Maintenance	<ul style="list-style-type: none"> • Modular parts interchangeable in factory • Dimension - \varnothing 101 x 204 mm - M20 thread • Tightening torque
Test system (option)	<ul style="list-style-type: none"> • Star Evolution Tester • Specific remote control
Impact on the environment	• 100% recyclable

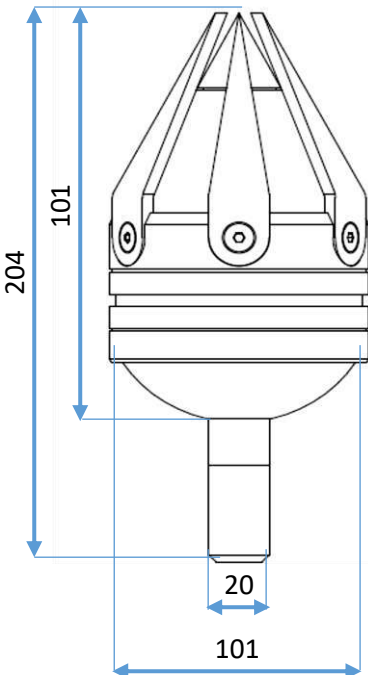
Guarantee ▶ 5 years manufacturer

Conditioning

Packaging	<ul style="list-style-type: none"> • Adapted to the size of the STAR • Dedicated custom cradles
Size of the box	<ul style="list-style-type: none"> • 205 x 103 x 103 mm • 100% recyclable
Net weight	1,505 Kgs
Gross weight	1,695 Kgs (with specific box)

Certifications

Traceability / Control	<ul style="list-style-type: none"> • Laser marking or specific engraving • Indestructible self-labeling system • Authentication by serial number • Certified reference to the order
Conformity	<ul style="list-style-type: none"> • NFC17102/1995 • NFC17102/2009 • NFC17102/2011
Customs code	• 85 36 90 85



Lightning Rod - Air Terminal STAR645®

Early Streamer Emission (ESE).

STAR® range. Lightning Protection.



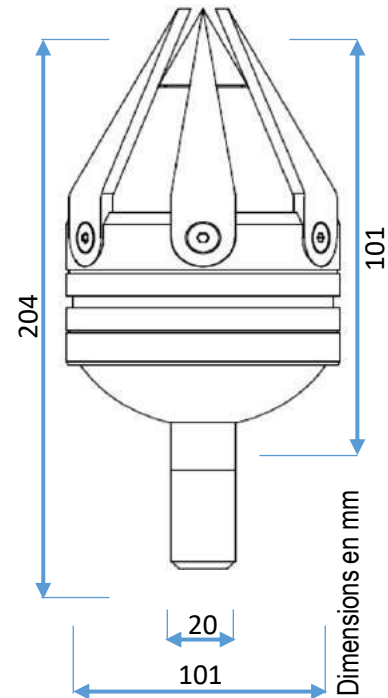
STAR® 645

Reference: STAR645

Description: **Lightning rod - Air Terminal
Early Streamer Emission**

Power: **($\Delta I = 45 \mu s$)**
▶ 6 stainless steel 316 differential fins

Net weight : 1.505 kgs
Gross weight : 1.695 kgs (Package included)
Dimensions : 204x101 mm



STAR® 645 - PROTECTION RADIUS EFFICIENCY **+45 μs**

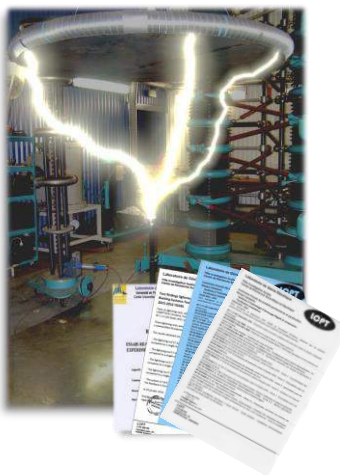
H meters	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
2	25	32	34	36
3	38	48	51	55
4	51	65	70	73
5	62	80	83	89
10	64	83	91	94
20	65	86	97	99

Protection distances in meters



STAR® 660

EARLY STREAMER EMISSION (ESE) AIR TERMINAL



Reference STAR660

Technical specifications

Power Δt	60 - microsecond boot time (us)
Lightning shock	Wave 10/350 microseconds
Test 100 kA	NFC 17102
Streamer	<ul style="list-style-type: none"> System technology with controlled priming technology® High impulse voltage
Structure	<ul style="list-style-type: none"> Electromagnetic cage, with electromechanical crimping 6 stainless steel 316 differential fins

Operation

Ascending Tracer Detection	Continuous measurement of ambient natural electric field
Power Management	<ul style="list-style-type: none"> Totally autonomous No external power supply
Maintenance	<ul style="list-style-type: none"> Modular parts interchangeable in factory Dimension - \varnothing 101 x 204 mm - M20 thread Tightening torque
Test system (option)	<ul style="list-style-type: none"> Star Evolution Tester Specific remote control
Impact on the environment	100% recyclable

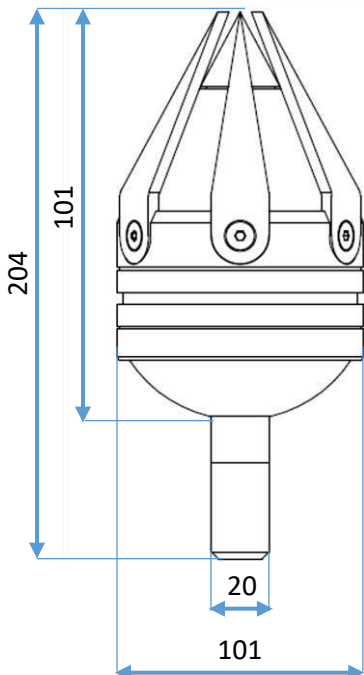
Guarantee ► 5 years manufacturer

Conditioning

Packaging	<ul style="list-style-type: none"> Adapted to the size of the STAR Dedicated custom cradles
Size of the box	<ul style="list-style-type: none"> 205 x 103 x 103 mm 100% recyclable
Net weight	1,5285 Kgs
Gross weight	1,719 Kgs (with specific box)

Certifications

Traceability / Control	<ul style="list-style-type: none"> Laser marking or specific engraving Indestructible self-labeling system Authentication by serial number Certified reference to the order
Conformity	<ul style="list-style-type: none"> NFC17102/1995 NFC17102/2009 NFC17102/2011
Customs code	85 36 90 85



Lightning Rod - Air Terminal STAR660®

Early Streamer Emission (ESE).

STAR® range. Lightning Protection.



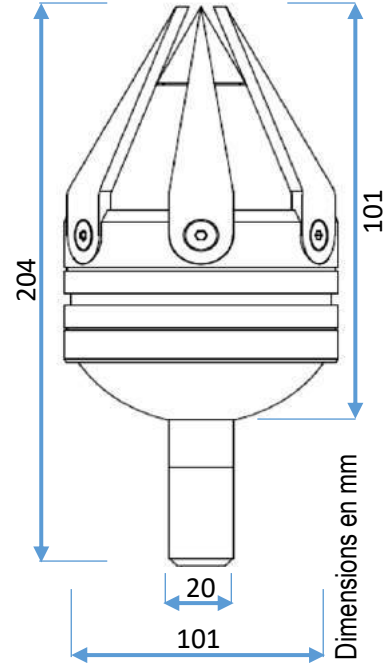
STAR® 660

Reference: STAR660

Description: **Lightning rod - Air Terminal
Early Streamer Emission**

Power: **($\Delta I = 60 \mu s$)**
▶ 6 stainless steel 316 differential fins

Net weight : 1.5285 kgs
Gross weight : 1.719 kgs (Package included)
Dimensions : 204x101 mm



STAR® 660 - PROTECTION RADIUS EFFICIENCY **+60 μs**

H meters	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
2	32	40	42	44
3	48	59	61	65
4	64	78	82	87
5	79	97	99	107
10	80	99	101	109
20	82	101	103	111

Protection distances in meters

