

Test report No.:	
Date:	

1. General information:

Location of the building to be tested:

Name:			
Contact:			
Address:			
Telephone:			

Proprietor of the building to be tested / customer :

Name:			
Contact:			
Address:			
Telephone:		E-Mail:	

Address of the tester:

Name:			
Contact:			
Address:			
Telephone:		E-Mail:	

Address of the lightning protection system designer:

Name:			
Contact:			
Address:			
Telephone:		E-Mail:	

2. Details on the building:

Name of the building/complex:	
Location:	
Use:	
Built in (year):	
Extension (year):	
Height of the building:	
Dimensions of the building (circumference):	
Type of construction:	
Roof shape:	
Type of roofing:	

3. Prerequisites of testing:

Description and drawing of the lightning protection system:	
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Testing of lightning protection systems

Test report No.: **Lightning protection standards and regulations in effect at the time the building is constructed:**

<input type="checkbox"/> DIN EN 62305-3 (2011-10)	<input type="checkbox"/> DIN V VDE V 0185-3 (2002-11)	<input type="checkbox"/> DIN VDE 0185-1 (1982-11)
<input type="checkbox"/> VDE 0185-305-3 (2006-10)	<input type="checkbox"/> DIN V VDE V 0185-4 (2002-11)	<input type="checkbox"/> DIN VDE 0185-2 (1982-11)
<input type="checkbox"/> VDE 0185-305-3: supplementary sheets 1-5	<input type="checkbox"/> DIN VDE 0100-410 and -540	<input type="checkbox"/> TGL
<input type="checkbox"/> VDE 0185-305-4 (2011-10)		
Class of LPS <input type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV		

4. Test object:

<input type="checkbox"/> External LPS	<input type="checkbox"/> Internal LPS
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5. Type of testing:

<input type="checkbox"/> Test during the design process	<input type="checkbox"/> Acceptance test	<input type="checkbox"/> Repeat test (complete)
<input type="checkbox"/> Test during construction	<input type="checkbox"/> Additional test	<input type="checkbox"/> Repeat test (visual inspection)

6. Test details:

Measuring method:	
Measuring devices:	
Weather conditions:	

7. Information on the lightning protections system:**Air-termination systems:**

Drawing No.:				
Mesh size:	<input type="checkbox"/> ≤ 5 m x 5 m	<input type="checkbox"/> ≤ 10 m x 10 m	<input type="checkbox"/> ≤ 15 m x 15 m	<input type="checkbox"/> ≤ 20 m x 20 m
	<input type="checkbox"/> ≤ 10 m x 20 m	<input type="checkbox"/> ≤ ____ m x ____ m		
Protective angle:				
Air-termination system:				
Material:	<input type="checkbox"/> Aluminium	<input type="checkbox"/> Copper	<input type="checkbox"/> StSt (V2A)	<input type="checkbox"/>
Roof superstructures (dimensions):				
Other:				

Down-conductor systems:

Down-conductor (description):				
Material:	<input type="checkbox"/> Aluminium	<input type="checkbox"/> Copper	<input type="checkbox"/> StSt (V2A)	<input type="checkbox"/>
Cross-section (mm):				
Quantity/Test joint/No.:	Quantity:	Test joint:	No.:	
Number of down-conductors:				
Other:				

Testing of lightning protection systems

Test report No.:	
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Earth-termination system:					
Material:	<input type="checkbox"/> Steel, hot-dip galvanised	<input type="checkbox"/> StSt (V4A)	<input type="checkbox"/> Copper <input type="checkbox"/>		
Type/Design:	Type A <input type="checkbox"/> Horizontal earthing electrode		<input type="checkbox"/> Vertical earthing electrode		
	Type B <input type="checkbox"/> Foundation earthing electrode		<input type="checkbox"/> Surface earthing electrode		
Other:					
Separation distance:					
Danger point:	Description:	Location:			
Separation distance:	Required:	Actual:			
Measures:	Yes <input type="checkbox"/>				
	No <input type="checkbox"/>				
Other:					
Lightning equipotential bonding structure connected to metal installations:					
Water pipe(s)/waste disposal line(s):	<input type="checkbox"/> available	<input type="checkbox"/> connected, location of connection:			
Other:					
Lightning equipotential bonding structure connected to metal installations:					
Type of system:	<input type="checkbox"/> TT	<input type="checkbox"/> TN-C	<input type="checkbox"/> TN-S	<input type="checkbox"/> TN-C-S	<input type="checkbox"/> IT
Lightning current arrester SPD Type 1:	available:	<input type="checkbox"/> Yes		<input type="checkbox"/> No	
	Manufacturer:			Product name:	
	Location of installation:				
	Proper function:	<input type="checkbox"/> Yes		<input type="checkbox"/> No	
Other:					
Lightning equipotential bonding structure connected to IT installations:					
Data communication and telecommunication:					
Measuring and control technology:					
Coaxial conductors:					
Lightning current arrester SPD Type 1 (D1 category)	available:	<input type="checkbox"/> Yes		<input type="checkbox"/> No	
	Manufacturer:			Product name:	
	Installation location:				
	Proper function:	<input type="checkbox"/> Yes		<input type="checkbox"/> No	
Other:					

8. Testing of technical documentation:

ok		
<input type="checkbox"/> Complete and in line with standards	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Testing of lightning protection systems

Test report No.:	
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9. Testing on site:

ok		
<input type="checkbox"/> Proper condition of the external LPS:		
<input type="checkbox"/> Installation of all conductors and system components		
<input type="checkbox"/> Installation and condition of the air-termination system	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Installation and condition of the down-conductors	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Earth-termination system		
– All earth connections	<input type="checkbox"/> Yes <input type="checkbox"/> No	
– Components affected by corrosion	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Proper condition of the internal LPS:		
<input type="checkbox"/> Correct installation of all lightning current (SPD Type 1) and surge arresters (SPD Type 2)		
– Power supply system	<input type="checkbox"/> Yes <input type="checkbox"/> No	
– Information technology system	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Damage or activation of the lightning current arrester	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Interruption of SPD back-up fuses	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Continuous lightning equipotential bonding for new supply connections inside the building which have been installed since the last inspection	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Equipotential bonding connections inside the building	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Separation distance between LPS and installations	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Changes which require additional protection measures	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	

10. Measuring:

ok		
Electrical conductivity of connections which are not visibly installed (test current recommended ≥ 200 mA)		
<input type="checkbox"/> Air-termination systems	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Down-conductors	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Earth conductors	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Equipotential bonding conductors	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> (recommended value < 1 ohm)	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	

Testing of lightning protection systems

Test report No.:	
------------------	--

Electrical conductivity of metal installations:			
Gas:	Water:	Heating:	Ventilation:
Ω	Ω	Ω	Ω
Ω	Ω	Ω	Ω
Ω	Ω	Ω	Ω

Measuring the transition resistances R at all measuring points in order to determine the electrical conductivity of the conductors

Test joint No.:	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11
Value in ohm:										
Test joint No.:	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21
Value in ohm:										
Test joint No.:	21-22	22-23	23-24	24-25	25-26	26-27	27-28	28-29	29-30	30-31
Value in ohm:										
Test joint No.:	31-32	32-33	33-34	34-35	35-36	36-37	37-38	38-39	39-40	40-41
Value in ohm:										
Test joint No.:	41-42	42-43	43-44	44-45	45-46	46-47	47-48	48-49	49-50	50-51
Value in ohm:										
Test joint No.:	51-52	52-53	53-54	54-55	55-56	56-57	57-58	58-59	59-60	60-61
Value in ohm:										

Soil composition:	<input type="checkbox"/> sandy soil	<input type="checkbox"/> gravel	<input type="checkbox"/> boggy soil, marshy ground, humus soil
	<input type="checkbox"/> stony	<input type="checkbox"/> concrete	<input type="checkbox"/> loamy soil, clay soil, farmland
Soil state:	<input type="checkbox"/> dry	<input type="checkbox"/> humid	<input type="checkbox"/> frozen

Measuring the earthing electrode resistance R_A of individual earthing electrodes when test joint is open

Measuring the loop resistance:

Test joint No.:	1	2	3	4	5	6	7	8	9	10
Value in ohm:										
Test joint No.:	11	12	13	14	15	16	17	18	19	20
Value in ohm:										
Test joint No.:	21	22	23	24	25	26	27	28	29	30
Value in ohm:										
Test joint No.:	31	32	33	34	35	36	37	38	39	40
Value in ohm:										
Test joint No.:	41	42	43	44	45	46	47	48	49	50
Value in ohm:										
Test joint No.:	51	52	53	54	55	56	57	58	59	60
Value in ohm:										

Measuring the earthing electrode resistance of the entire system when test joints are closed _____ Ω

Visual inspection of the uncovered earthing electrode Yes No

Location of the uncovered earthing electrode:



Testing of lightning protection systems

Test report No.:	
------------------	--

11. Total earthing resistance of the system:		
Type of measurement:	<input type="checkbox"/> without protective conductor	Ω
	<input type="checkbox"/> with protective conductor	Ω

12. Test report:		
The LPS has no defects	<input type="checkbox"/> Yes	<input type="checkbox"/> No

The test revealed the following defects:	
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Testing of lightning protection systems

Test report No.:	
------------------	--

13. Details on administrative regulations:

Specified test mode of the repeat test according to administrative requirements and regulations.

Interval between complete inspections:	
1 year	
2 years	
3 years	
4 years	
5 years	
6 years	

Protection level	Visual inspection (year)	Complete inspection (year)	Critical situations ^{a, b} complete inspection (year)
I and II	1	2	1
III and IV	2	4	1

^a Lightning protection systems utilized in applications involving structures with a risk caused by explosive materials should be visually inspected every 6 months. Electrical testing of the installation should be performed once a year. An acceptable exception to the yearly test schedule would be to perform the tests on a 14 to 15 month cycle where it is considered beneficial to conduct earth resistance testing over different times of the year to get an indication of seasonal variations.

^b Critical situations could include structures containing sensitive internal systems, office blocks, commercial buildings or places where a high number of people may be present.

Source: EN 62305-3; Table E.2 Maximum period between inspections of a LPS

The inspection frequencies given in Table E.2 should apply where no specific requirements are identified by the authority having jurisdiction.

Next inspection in (year)	
Number of pages test report	
Number of pages drawings	
Number of photos for the test report	
Number of pages of all enclosures	
Enclosures of the test report Drawing No.	

Notes for the proprietor of the system:

The proprietor has to remedy the defects.

Check if additional internal lightning protection measures are necessary.

In case of structural alteration or lightning strike, immediately contact the revision service.

		Company
Place	Date	
Signature of the tester		