

Inspection and test report for electrical installation in hazardous locations (see 7.14)

<p>INSPECTION AND TEST REPORT</p> <p>FOR ELECTRICAL INSTALLATIONS IN HAZARDOUS LOCATIONS INN</p> <p>ACCORDANCE WITH SANS 10142-1, SANS 10108,</p> <p>SANS 10086, SANS 10089 AND SANS 60079 SERIES</p> <p><i>(Print test report on white paper only)</i></p>	<p>COC No.</p>	
	<p>Date of issue:</p>	

NOTE 1 In terms of South African legislation, the user or lessor is responsible for the safety of the electrical installation.
 NOTE 2 This report covers only that part of the installation described in Section 3.
 NOTE 3 This report covers the circuits to all machinery (including the equipment installation, selection and environment in hazardous locations only).
 NOTE 4 Enter the required information or tick the appropriate block.

SECTION 1 – LOCATION

Name of company:			
Name of building/Plant:			
Technical Identification:		Additional names or numbers:	
Plant / Location / site number / code:	_____		_____
Description:	_____		_____
Zone Classification & Approval date:	_____		_____
Project Detail / Number:	_____		_____
Project Manager: (name & contact details):	_____		_____
Project Manager Designation:	_____		_____
Installation: (New / Existing ./ New part of Existing):	_____		_____
Electrical Contractor (Name & Reg no.):	_____		_____
Expiry date of Contractor Registration with DOL:	_____		_____

SECTION 2 – INSTALLATION

Existing Certificate: <input type="checkbox"/> Yes <input type="checkbox"/> No		Date issued:		COC Number:	
<input type="checkbox"/> Existing Installation	<input type="checkbox"/> Alteration/ Extension	<input type="checkbox"/> New installation	<input type="checkbox"/> Temporary Installation		
Type of electricity supply system (See SANS 10142-1 Annex J):					
<input type="checkbox"/> TN-S	<input type="checkbox"/> TT	<input type="checkbox"/> TN-C-S	<input type="checkbox"/> IT		
Supply earth terminal provided:	<input type="checkbox"/> Yes		<input type="checkbox"/> No		
Estimated year of installation:					
Characteristics of supply:					
Voltage:	<input type="checkbox"/> 230 V	<input type="checkbox"/> 400 V	<input type="checkbox"/> 525 V	<input type="checkbox"/> Other:	
Number of phases:	<input type="checkbox"/> One	<input type="checkbox"/> Two	<input type="checkbox"/> Three	Phase Rotation: <input type="checkbox"/> Clockwise	<input type="checkbox"/> Anticlockwise
Frequency:	<input type="checkbox"/> 50 Hz	<input type="checkbox"/> Other:			
Main switch type:					
<input type="checkbox"/> Switch disconnector (on load isolator)		<input type="checkbox"/> Fuse switch	<input type="checkbox"/> Circuit breaker		
<input type="checkbox"/> Earth Leakage switch disconnector		<input type="checkbox"/> Earth Leakage Circuit Breaker (ELCB)			
Number of poles:		Current rating: Amp	Short circuit withstand rating: kA
Rated earth leakage withstand rating / IΔn			<input type="checkbox"/> 15 - 30mA	OthermA	

Is Surge protection installed? (see 6.7.6 and Annex I)	<input type="checkbox"/> Yes	<input type="checkbox"/> No			
Is External Lightning Protection installed? (see 6.7.6 and Annex I)	<input type="checkbox"/> Yes	<input type="checkbox"/> No			
Is Alternative Power Supply installed? (see 7.12)	<input type="checkbox"/> Yes	<input type="checkbox"/> No			
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SECTION 3 - DESCRIPTION OF INSTALLATION COVERED BY THIS CERTIFICATE					
Item	Machinery / Equipment	Serial number	QTY	Comments / Attachments <small>Note 1: Initial detail inspection report as per SANS 60079-14 (Attachments – Total Number of Pages reference in Section 3.1)</small>	
1.	<i>Example: 525Volt – Ex ec 3 phase induction motor</i>	<i>BV388/2</i>	<i>One</i>	<i>Attachment 1 - Section 3.1.7 (Initial inspection report); Attachment 2 - Section 3.1.6 (IA certificate)</i>	
SECTION 3.1 - HANDOVER DOCUMENTATION - Attachments to Certificate					
No.	Item(s)	Attachment Ref No	N/A	Yes	No
1	Hazardous Area Classification Report / Minutes. EMR 9(1) - Normative				
2	Hazardous Area Classification Drawings (Informative)				
3	Material / Safety Data sheets.				
4	Detailed Installed equipment register and complete data sheet.				
5	Installation and maintenance instruction form OEM. (SANS 60079-0)				
6	IA Certificates from Approved Test Laboratory for installed equipment as per data sheet. (Normative) EMR 9(3). (Take care of special conditions of use "X" requirements)				
7	Initial detail inspections as per SANS 60079-14 (Normative)				
8	Demarcation boards installed as per SANS 10108 (Normative)				
9	Valid DOL Registration documentation of Electrical Contractor & MIE (Normative)				
10	Supporting Drawings list: Electrical (Normative)				
	a) Termination schedule				
	b) Cable Schedule				
	c) Main Power Network				
	d) Single line diagram(s)				
	e) Wiring & Schematic diagrams				
	f) Panel lay-out arrangement – Earthing				

	g) Earthing network systems (Both types "A" & "B")				
11	Test equipment used listed above (Instrument) with valid & approved calibration certificates for each item				

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SECTION 4 – TESTS (All electrical installations)

NOTE Carry out all the tests for the main distribution board. Also conduct all tests and complete copies of the tests for each distribution board and for each supply (normal and alternative supplies) and attach as Annexes to this report.

Tests		Unit/s	Instrument	Reading/result		
1	Continuity of bonding	Ω				
2	Resistance of earth continuity conductor	Ω				
3	Continuity of ring circuits (if applicable)	-				
4	Earth loop impedance test: at Main Switch	Ω		R-N	Y-N	B-N
5	Prospective short-circuit current at point of control (PSCC).		kA	R-N	Y-N	B-N
	Indicate:	Calculated				
6	Elevated voltage between incoming neutral and external earth (ground)	V				
7	Earth resistance (if required)	Ω				
8	Insulation resistance	MΩ				
9	Voltage at main distribution board with no load for each phase to neutral	V		R-N	Y-N	B-N
10	Voltage at main distribution board with load (as calculated for full load) for each phase to neutral	V		R-N	Y-N	B-N
11	Voltage at available load (worst condition as calculated for full load) for each phase to neutral	V		R-N	Y-N	B-N
12	Operation of earth leakage units	mA		Correct		
13	Operation of earth leakage test buttons	-	Test Button	Correct		
14	Polarity of points of consumption	-		Correct		
15	Phase rotation at points of consumption for three-phase systems	-	<input type="checkbox"/> Clockwise	<input type="checkbox"/> Anticlockwise		
16	All switching devices, make-and-break circuits	-	Function Test	Correct		

Comments and/or additional pages with test results recorded:

Comments on parts of the installation not covered by this report:

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SECTION 5 – RESPONSIBILITY

Note 1: For existing installations, complete only 5.4. For new/altered/temporary installations, if no signature appears in 5.1 to 5.3 the signatory of 5.4 takes responsibility

5.1 DESIGN. I, being the person(s) responsible for the DESIGN of the electrical installation, particulars of which are described in section 3 of this document, CERTIFY that the work for which I have been responsible, is to the best of my knowledge and belief in accordance with the Relevant Legislation and SABS standards and specifications. I acknowledge and accept the conditions as per section 6 of this document. The extent of liability of the signatory is limited to the installation described in section 3 of this document..

For the DESIGN of the installation:

Name (in block letters):Position:

Professional Registration No: ID No:

For and on behalf of companyCIPC Reg No:

Address: Email:.....

Signature:Tel/Cell No Date:

5.2 MATERIAL SPECIFICATION/ PROCUREMENT. I, being the person(s) responsible for the MATERIAL SPECIFICATION / PROCUREMENT for the electrical installation, particulars of which are described in section 3 of this document, CERTIFY that the equipment that I have specified and procured, is to the best of my/our knowledge and belief in accordance with the Relevant Legislation and SABS Specifications and standards. I acknowledge and accept the conditions as per section 6 of this document. The extent of liability of the signatory is limited to the installation described in section 3 of this document.

For the MATERIAL SPECIFICATION/ PROCUREMENT:

Name (in block letters):Position:

Professional Registration No:(if applicable) ID No:

For and on behalf of company CIPC Reg No:

Address: Email:.....

Signature:Tel/Cell No Date:

5.3 CONSTRUCTION I, being the person(s) responsible for the CONSTRUCTION of the electrical installation, particulars of which are described in section 3 of this document, CERTIFY that the work for which I/we have been responsible, is to the best of my/our knowledge and belief in accordance with the Relevant Legislation and SABS Specifications and Standards. I acknowledge and accept the conditions as per section 6 of this document. The extent of liability of the signatory is limited to the installation described in section 3 of this document.

For the CONSTRUCTION of the installation::

Name (in block letters):Position:

For and on behalf of companyCIPC Reg. No:

Address: Email:

Contractors registration No. with the Chief Inspector:..... Expiry Date:

Department of Employment and Labour Registration No:..... Tel/Cell No

Signature: Date:.....

5.4 INSPECTION AND TESTS. I, being the person(s) responsible for the INSPECTION AND TESTING of the electrical installation, particulars of which are described in section 3 of this document, CERTIFY that the inspection and testing were done in accordance with the design as specified in section 3 with the conditions set out in section 6 of this document, as designed by the person as per section 5.1 and material that had been specified as per section 5.2 and construct by the person as per section 5.3 of this document and that the results given are correct at the time of test and in accordance with the design.

(for installation work performed since the publication of the requirements of 7.14 of SANS 10142-1, or

(For an installation existing before publication of this part of SANS 10142), that the hazardous installation complies with the general safety principles of SANS 10142-1 and is reasonably safe.

The extent of liability of the signatory is limited to the installation described in section 3 of this form.

Name of registered person: ID No:

MIE Registration No..... Tel/Cell No

For and on behalf of companyEmail:Address:

Signature: Date:.....

