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**Procedure for the control of LOVAG Report Forms for Testing,**  
**Comparison and Assessment**

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**Remark:**

LOVAG OD 01-01 constitutes a technical revision.

With respect to the previous edition, at follow the significant modifications:

- declaration of responsibility moved in a dedicated document (LOVAG documents for responsibility)
- deletion of LTI reference
- introduction of LDS document (LOVAG OD 01-02)
- modification of LOVAG Document Classification document
- new TRF form sheet structure
- deletion to LOVAG Observer reference

**LOVAG OD 01-01**  
**Edition 1.7**

**Approved by LOVAG Management Committee**  
**November 2021**

**Signed:**

## **Procedure for the Control of LOVAG Report Forms**

### **Objective**

The purpose of this procedure is to ensure the identification, review, creation, authorization; control and issue of all LOVAG Report Forms.

An overview and classification of all LOVAG Documents is given in LOVAG Document Classification (LDC 01)

LOVAG Test Report Forms, Comparison Report Forms and Assessment Report Forms shall hereinafter be referred to as TRFs, CRFs and ARFs, respectively.

### **Responsibility**

Responsibility of Preparation, Approval, Authorization and Process Control of all LOVAG document are reported in the ad hoc document LOVAG Definition of Responsibility

### **Terms and Definitions**

LOVAG Management Committee [LMC]

LOVAG Agreement, item 2.1 applies

LOVAG Technical Committee [LTC]

LOVAG Agreement, item 2.2 applies

Author [AUT]

The LTC shall appoint a nominated representative, as 'Author' responsible for the preparation of new and revised documents. The LTC shall appoint a second representative as Co-author that, whenever possible, shall assume responsibility for producing the TRF.

Co-Author [CO-AUT]

The Co-Author has to check and to comment to a draft LOVAG TRF within an appropriate time and his approval is necessary before the issue of LOVAG Report Forms

Secretariat [SEC]

LOVAG Rules apply

Certification Body [CB]

Certification Bodies signatories of LOVAG Agreement.

Document Issue List [DIL]

LOVAG list document under maintenance of LOVAG Secretary for control and documentation of issue documents

LOVAG Decision List [LDS]

LOVAG list document approved by LTC as interpretation or technical decision inside a standard text (see OD-01-02)

## Preparation of New TRFs, CRFs and ARFs.

1. For the preparation of a new document, Author shall consider a Standard new text or new edition and referred LOVAG Decision, if exist taking from the original List (see OD 01-02)
2. The Author of any new document will prepare the document in accordance with the guidelines detailed in Appendix 1 for TRFs and Appendix 2 for CRFs and ARFs, as appropriate
3. The Author shall circulate, by e-mail, the draft document to the co-author for review, discussion and comment. The time for this activity shall be fixed within **one month**.
4. LTC Chairman approves the document and send the final document (electronic version in actual PDF- and WORD format) to Secretary who will put on the web site.
5. LTC, during the following meeting, ratifies the approval of the documents.
6. If, during the LTC meeting, a consensus is not achieved, the document will be re-discussed, and actions will be taken from the revision of the document

## Maintenance of LOVAG Report Forms

1. Author of the original document shall be responsible for ensuring that the document is maintained up to date in accordance with new editions, amendments and corrigenda to the relevant standard.
2. Author and SEC shall continuously monitor and review the status of published standards listed within the scope of LOVAG.
3. When a change to a published standard is identified:
  - a. the Author shall review the change and prepare a new edition of the document and
  - b. the Secretary shall notify the authors of the change, to review the change and prepare a new edition of the document.
4. Any new document or change to the existing resulting from:
  - a new edition or an amendment or corrigendum to the published standard
  - any new LOVAG Decision referred and impacting on standard text
 shall be prepared **within 6 months** of the change and shall be circulated to the LTC for comments **within 2 months**, to the Author. If no adverse comments are received and the CoAuthor has given his approval, the author will forward the change to the Secretary for signature and issue. If any adverse comments are received, the Author shall circulate the change and comments to the Secretary for discussion at the next meeting of the LTC. After receiving the final document, Secretary shall be issue **within 1 month**.
5. All documents covered by this procedure shall remain in force until such time as the published standard is withdrawn, where a date of withdrawal is specified by the issuing authority, or, until a date specified by the LTC following the issue of a superseding standard, which shall not be less than **12 months** after the date that superseding standard comes into force. Superseding documents shall indicate the date of withdrawal of the document to be superseded.
6. Any editorial changes to the documents shall be advised to the Secretary, with a revised document indicated by the Edition No. followed by a, b, c etc. and immediately issued.
7. Author of the original document shall be responsible for ensuring that all improvements suggested

by the CBs and/or laboratories will be considered and all detected technical mistakes are quickly deleted from the document. In case of no improvements or technical mistakes detected, the Author shall consider the evaluation of the document at least once every two years.

### **Issue of Documents**

1. The issue of the document is made by the Secretary by placing it on the ETICS/ LOVAG Website in PDF-format to be downloaded by each signatory. The Comment shall be made that only the PDF version published on the website is the valid master copy.
2. The decision for signature and issue of a LOVAG Document (LOVAG Report Forms) has to be made by the LTC Chairman and ratified by the LTC. If the approval of a CoAuthor is available this decision can be made even beside the meetings (e.g. by agreement by e-mail); but in cases where no Co Author is nominated the approval has to be given by an official meeting of LTC.
3. A controlled list of all documents shall be maintained by the SEC. This list shall include the following details:
  - a) Document reference.
  - b) Title of document.
  - c) Edition No
  - d) Date of issue.
  - e) Issue status of the standard including corrigenda/amendments and dates.
  - f) Authors.
  - g) Review date.
4. Secretary shall maintain a list (Document Issue List, DIL) for control and documentation of issued documents.
5. Master copies of all documents will be maintained by and located in the Secretariat. The master copies shall be saved on a separate electronic storage device.

### **Control of revised Editions**

1. The procedures above shall be used for the control of changes to issue documents.
2. Changes shall be in the form of a new edition of the document with the new edition number for all pages. The changes shall be approved / authorized by the LTC Chairman and ratified by the LTC.
3. The nature of the change will be recorded in the DIL.
4. New editions of documents may not require the previous edition to be rendered obsolete as, in some cases, standards remain in force for a moratorium period after the new edition comes into force.

## Identification of Published Documents

All documents will be identified by reference to the published standard to which they refer, by utilizing the numbers of the standard, as follows:

- TRF indicating Test Report Form
- ARF indicating Assessment Report Form
- CRF indicating Comparison Report Form

followed by

- IEC indicating Standard – number - part and sub - part of standard

For example:

- a) the reference for the TRF to IEC/EN 60947-2 would be LOVAG TRF 60947-2
- b) the reference for the TRF to IEC 60947-2 would be LOVAG TRF IEC 60947-2
- c) the reference for the TRF to EN 60947-2 would be LOVAG TRF EN 60947-2

The edition of the document shall be marked in accordance to the consolidated IEC.

For example:

LOVAG TRF 60947-2 Edition 2.1 according to the IEC 60947-2 Ed. 2 + AMD 1 (in dates)

If the TRF is based on an EN only, which has no edition number but only the year of issue, then take this year as the Edition number:

For example:

LOVAG TRF EN 50298 Edition 1998 according to the EN 50298 (1998)

Changes to the LOVAG-document not caused by the referred standard or for special purpose shall be marked by an additional letter.

For example:

“LOVAG TRF IEC 60947-2 Edition 2.1a” added by several items required by meanwhile experience.

For not to cause a new marking of the existing documents the new marking system is obvious by the word order changing from “LOVAG TRF IEC 60947-2 4th Edition” to “TRF IEC 60947-2 Edition 2.1a”.

Using this system of marking the user of a LOVAG document can recognize the connection to the relevant standard without additional information.

## Identification of Draft Documents and Comments Papers

1. All such documents shall be identified by a unique reference indicating the author, committee reference and paper number. The AUT of the paper shall assign this reference to the document and the document shall have an issue date and, if appropriate, an issue status.
2. The Author shall maintain a controlled list of documents circulated including the details specified in one above and the title of the document.
3. SEC of the LTC shall maintain a controlled list of all documents circulated and shall register new documents on the list, upon receipt.

Paper reference identification is given below for

Papers submitted by members of the LTC.

Country code:

ES = Spain (APPLUS)      IT = Italy (ACAE)

followed by,

CT = Technical Committee followed by, (LOVAG) Year (last two digits)

The complete reference may be therefore ES/CT(LOVAG)20.001.

This would apply to all types of documents e.g. draft instructions / TRF or comment documents

## Formatting Guidelines for LOVAG Report Forms

To gain a unique appearance the following format recommendations shall be kept:

**File format:** MS Word (6.0 or higher)

**Font:** Main Heading : **Arial 14 pt bolt (Title of a test sequence)**

Sub-heading: **ARIAL 10 PT BOLD (TITLE OF A TEST)**

Sub-sub-heading: **Arial 10 pt bold (Title of a sub clause of a test)**

Normal text: Arial 10 pt Standard (Requirements)

Footer: Arial 8 pt Standard (Footer)

**Line spacing:** exact: 14 pt

The line spacing shall be strictly kept, to avoid different Word-wraps when different printers are used; only in cases where graphics are inserted the line spacing has to be changed to the setting single line.

**Paper size:** A4 (210 x 297 mm)

**Margins:** Top: 2 cm, Bottom: 2 cm, Left: 3 cm, Right: 1 cm

**LOVAG Logo:** The LOVAG logo (6.0 cm length) shall be given on the top left side of the first page of the LOVAG Test Instructions, the auditing survey and the front page (form 1) of the LOVAG TRF. All following pages (Form 2 and higher) shall bear a small LOVAG logo (2.4 cm length) on the top left side. Example for both sizes are given below:



## FORMAT and SIGNATURE of Test Report Forms

Examples of the first few pages of a TRF are shown on the following pages and must be provided with each complete Test Report (except the auditing survey).

- a) Auditing Survey – indicates the **date** of making of the TRF, the **test Object**, the **test specification** with its issue date and (for IEC) its edition number, the **content** of the TRF (only numbers of the page forms for Front sheet and overview pages for each sequence), the total number of page forms, the date of issue of the TRF (**valid from**), the **signature of the Chairman of the Technical Committee**, the **Author** of the TRF, and shall be updated each time a new edition of the TRF is issued.
- b) TRF **front sheet** (form 1) – identifies the report number, testing laboratory (LOVAG code, name and complete address), client, manufacturer, test object, dates of tests, standards, contents of the report, etc.

Additionally, the following statement has to be given on the front sheet: “Decisional rule for performances required and all the measurement uncertainties reported are in conformity with LOVAG General Instruction G2 – Measurement Uncertainties, at the last valid revision of the date of LOVAG TRF edition”

At the bottom, there shall be the “Note: The test result relates only to the items tested. The test report shall not be reproduced except in full without the written approval of the test laboratory”.

In the completed test report, this front page has to be signed

- 1) By the authorized representative of the LOVAG CBs (LOVAG Technical Witness (LTW)). The name, function and signature have to be given.
  - 2) By the authorized representative of the laboratory (person from the laboratory being responsible for the correctness of the test report and being authorized by the accreditation body in the accreditation certificate or authorized by the CB, which is responsible for the qualification of the laboratory according to ISO/IEC 17025).  
The name, position and signature have to be given.
- c) Because not each page of the test report has to be signed, with the **second page** of each test report (form 2) a **listing** has to be given, where the names and signatures of the persons (assigned to the related sequences, pages of the test report) are listed, who have performed the testing, respectively filled in the TRFs.
  - d) **On the second page (form 2)** of each test report a list of samples under test should be given. (As far as this page form is not available in the TRFs, the blank page should be used)  
\*) Characteristics and acronyms used have to refer to the standard product reference
  - e) **From the third page form (from form 3)** a description and characterization of the test object – provides all the details of the product tested supported by supplementary sheets/drawings where required should follow.
  - f) All TRFs shall follow the format given as an example in the following pages.  
Formatting guidelines are shown in Appendix 1.
  - g) The TRF page forms, which have not been used, are to be excluded from the test report.
  - h) The progressive numbering of the test report page forms is to be considered as an identification code



only since some pages may be omitted. Consequently, the test report pages shall have their own progressive numbering, which has to be used for any internal reference. The identification code of the page form shall never be used for references.

- i) In order to keep the handling of the test report more flexible a reference in the test report to an additional page (e.g. to an oscillogram) should be made to a numbered annex instead to a page number.
- j) The front pages of all test sequences, giving the Sub-clause, Test and page form shall additionally give the number of the first page of the relevant test.

k) Test results evaluation

If necessary, the following possible test case valuation are applied and reported in column "Results"

-test case does not apply to the test object : N/A (Not Applicable)

-test object does meet the requirement : P (Pass)

-test object does not meet the requirement : F (Fail)

Note: this last one test result evaluation (F), is not allowed in a test report finalized to a certification

j) Test case condition

-Yes or No could be used in the case to detail specific test conditions (e.g.: part connected or not, parts mounted or dismounted, etc.)

l) In cases where a test diagram has to be included in the TRF

(e.g. according to Fig. 3 of IEC 60947-3) the test diagram of the test station shall to be used

## FORMAT and SIGNATURE of Assessment, Comparison Report Forms

Examples of the first two pages of ARFs and CRFs are shown in Appendix 2.

- a) The front page gives an Auditing Survey – indicates the date of making of the ARF or the CRF, the test Object, the test specification with its issue date and (for IEC) its edition number, the content of the ARF or CRF (only numbers of the page forms for Front sheet and overview pages for each sequence), the total number of page forms, the date of issue of the Report Forms (valid from), the signature of the Chairman of the Technical Committee, the AUT of the Report Form, and shall be updated each time a new edition of the Report Form is issued.
- b) The ARF and CRF front sheet (form 1) – identifies the report number, original manufacturer (name and complete address), apparatus, type designation, standard, verification results, content of report and date of issue.


In the completed assessment or comparison report, this front page has to be signed


- 1) By the responsible client of the assessment or comparison proposal. The name, function and signature have to be given.
  - 2) By the authorized representative of the LOVAG CB, confirming the correctness and accuracy of the verification report. The name, position and signature have to be given.
  - 3) Each page of the LOVAG CRF and ARF has to be signed by the assessor performing the verification by assessment or comparison.
- c) At the bottom of the first page (form 1) there shall be the “Note: The verification result relates only to the items verified. The ARF and CRF, respectively, shall not be reproduced except in full without the written approval of the Assessor”.
  - d) All Report Forms shall follow the format given as an example in the following pages. Formatting guidelines are shown in Appendix 2.
  - e) The progressive numbering of the test report page forms is to be considered as an identification code only since some pages may be omitted. Consequently, the test report pages shall have their own progressive numbering, which has to be used for any internal reference. The identification code of the page form shall never be used for references.
  - f) In order to keep the handling of the test report more flexible a reference in the test report to an additional page (e.g. to an oscillogram) should be made to a numbered annex instead to a page number.

Examples of all the requirements above is given into the next Appendix 1 and 2 of this procedure.

LOVAG Test Report Form


Description of the structure and forms of a Test Report Form

 <p style="text-align: center;"><b>LOVAG Test report form: 60947-2 Version 5.1a</b></p>			
Document Date:		2020/04/02	
Test object:		Circuit-breakers	
IEC test specification: 60947-2: 2018 + AMD1: 2019			
in conjunction with 60947-1: 2007 AMD1: 2010 AMD2: 2014			
EN test specification: 60947-2: 2017 + AMD1: 2020			
in conjunction with 60947-1: 2007 AMD1: 2010 AMD2: 2014			
<b>Content:</b>	<b>Description</b>	<b>form</b>	
	Front Sheet	1	
	Signatures of the competent persons	2	
	The samples under test	3	
	Overall schema of the test sequences	4	
	Description and pictures of test object	5-21	
	Test sequence		
	Constructional requirements		
	Marking	22-37	
	Resistance to abnormal heat and fire	38-42	
	Withdrawable circuit-breakers	43	
	Enclosure for equipment	44	
	Mechanical and electrical verification of terminals	45-51	
	Type test		
	Test sequence I	52-69	
	Test sequence II and III ( $I_{cr}=I_{cu}$ )	70-75	
	Test sequence III	76-78	
	Test sequence IV	79-81	
	Test sequence V	82-84	
	Test sequence VI (Combined)	85	
	Critical D.C. load current	86-88	
	Special tests		
	Damp heat, salt mist, vibration and shock		
	Test sequence category A	89-93	
	Test sequence category B	94	
	Test sequence category C	95-96	
	Test sequence category D	97-99	
	Test sequence category E	100-101	
	Test sequence category F	102	
	Annex A		
	Verification of selectivity in short-circuit condition	103-104	
	Back-up protection	105-106	
	Annex B		
	Test sequence I for CBRs	107-108	
	Test sequence II and III ( $I_{cr}=I_{cu}$ ) for CBRs	109-110	
	Test sequence III for CBRs	111-112	
	Test sequence IV for CBRs	113	
	Test sequence V for CBRs	114	
	Combined test sequence for CBRs	115	
	Test sequence B.I	116-141	
	Test sequence B.II	142-144	
	Test sequence B.III	145-146	
	Test sequence B.IV	147-152	
LOVAG Test report	Valid from:	2020/04/03	LOVAG TRF 60947-2
Form sheet (1/2)	Chairman of Technical Committee <i>Massimo Rota</i>		2020/04/03 Version 5.1a Author: ACAE

 <p style="text-align: center;"><b>LOVAG Test report form: 60947-2 Version 5.1a</b></p>			
Document Date:		2020/04/03	
Test object:		Circuit-breakers	
IEC test specification: 60947-2: 2018 + AMD1: 2019			
in conjunction with 60947-1: 2007 AMD1: 2010 AMD2: 2014			
EN test specification: 60947-2: 2017 + AMD1: 2020			
in conjunction with 60947-1: 2007 AMD1: 2010 AMD2: 2014			
<b>Content:</b>	<b>Description</b>	<b>form</b>	
	Annex C	Individual pole short-circuit test sequence 153-154	
	Annex D	Additional requirements for connection with aluminium conductors 155-157	
	Annex F	Immunity tests 158-166	
		Emission tests 167-168	
		Suitability for multiple frequencies 169-170	
		Dry heat tests 171-172	
		Damp heat tests 173-174	
		Temperature variation cycles 175-176	
	Annex H	Test sequence for IT systems 177-178	
	Annex M	Test sequence M.I 179-205	
		Test sequence M.II 206-212	
		Test sequence M.III 213	
		Test sequence M.IV 214	
	Annex N	Immunity test on auxiliaries 215-223	
	Annex O	Instantaneous trip circuit-breaker (ICB) 224-225	
	Annex P	DC circuit-breakers for use in photovoltaic (PV) applications 226-230	
	Annex R	Circuit-breakers incorporating residual current protection with automatic re-closing functions 231	
		Test sequence #1 232-240	
		Test sequence #2 241	
		Test sequence #3 242	
		Test sequence #4 243	
		Test sequence #5 244	
		Calibration of the test circuit 245	
		Circuit scheme sheet 246-295	
		Test set up sheet 296-318	
		Measurement sheet 319-320	
		Additional page 321	
<b>Number of page forms: 321</b>			
LOVAG Test report	Valid from:	2020/04/03	LOVAG TRF 60947-2
Form sheet (2/2)	Chairman of Technical Committee <i>Massimo Rota</i>		2020/04/03 Version 5.1a Author: ACAE

LOVAG Test Report Form

1<sup>st</sup> page



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Test report N° .....

Test laboratory : .....

Applicant : .....

Manufacturer : .....

Test object : .....

Type designation : .....

Date(s) of test(s) : .....

Standard for test : IEC 60947-2: 2016 + AMD1: 2019  
: EN 60947-2: 2017 + AMD1: 2020

Test sequence(s) : .....

Test results: : .....

This Test Report consists of: ..... pages LOVAG test report forms and  
..... other pages

Date of issue: .....

Authorized Representative of Lovag Certification Body

Name: .....

Function: .....

Signature: .....

Authorized Representative of the Laboratory

Name: .....


Function: .....

Signature: .....

note: The test result relates only to the items tested.  
The test report shall not be reproduced except in full  
without the written approval of the test laboratory

LOVAG TRF 60947-2  
Edition 5.1a Form 1

2<sup>nd</sup> page



Test Report No. ....  
Page 2 / 323

**SIGNATURES OF THE COMPETENT PERSONS  
WHO PERFORMED THE TESTS**

Listing of test sequence or subclause *	Test item description	Signature of the competent person who performed the tests		
		Name	Date	Signature

\*see page 3 for sample/s under testing identification and report page

Test case valuation  
if necessary, the following possible test case valuation are applied and reported in column **Results**

- test case does not apply to the test object : N/A (Not Applicable)
- test object does meet the requirement : P (Pass)
- test object does not meet the requirement : F (Fail)

Other information (if necessary) :

- product receipt date : .....
- specific test conditions : .....
- other : .....
- : .....
- : .....
- : .....

Responsible Observer

Name : .....

Function : ..... Organization: .....

Address : .....

Date : ..... Signature : .....

Form 2

Test laboratory: IEC 60947-2: 2016 + AMD1:2019  
EN 60947-2: 2017 + AMD1:2020

LOVAG TRF 60947-2  
Edition 5.1a









LOVAG Test Report Form

Test sequence description

requirements and value results

LOVAG		Test Report No. .... Page 22 / 323
Standard clause	Kind of tests and requirements	Test value results
<b>TEST SEQUENCE</b>		
Constructional requirements verification		
Constructional requirements verification comprises the following tests:		
Verification in compliance with IEC 60947-2		
	<b>Test</b>	<b>Pageform</b>
5.2	Circuit-breaker Marking	23-24
Annex B	CBR circuit-breaker	25-26
Annex D	Terminals for connection with conductors	27
Annex H	Circuit-breaker for IT system	28
Annex L	Circuit-breakers not fulfilling the requirements for overcurrent protection	29
Annex M	MRCDC circuit-breaker	30-34
Annex O	ICB Circuit-breaker	35
Annex P	Circuit-breaker for d.c. P/V system	36
Annex R	CBR circuit-breaker with autoreclosing device	37
Constructional requirements		
Test in compliance with IEC 60947-1		
	<b>Test</b>	<b>Pageform</b>
8.2.1	Material	
8.2.1.1	Resistance to abnormal heat and to fire	38-42
7.1.2	Withdrawable circuit-breaker	43
8.2.3	Enclosure for equipment	44
8.2.4	Mechanical and electrical properties of terminals	45-51
8.2.4.4	Pull-out test	46
8.2.4.7	Electrical performance of screwless-type clamping units	47
8.2.4.8	Ageing test for screwless-type clamping units	48-49
8.2.5	Effectiveness of indication of the main contact position	50
8.2.7	Pull-out, torque and bending test with metallic conduits	51
		<b>Test Report Page N°</b>
		Form 22
Test laboratory: IEC 60947-2: 2016 + AMD1:2019 LOVAG TRF 60947-2		
EN 60947-2: 2017 + AMD1:2020		Edition 5.1a


LOVAG		Test Report No. .... Page 30 / 323
Type test according to: IEC 60947-2		Type:
Constructional requirements		
Standard clause	Kind of tests and requirements	Test values
		Results
60947-2	<b>Circuit-breakers with external residual current protection</b>	
M.5	Data marked on single device	
Table M.1	Data visible from the front when the MRCD is installed as in service and the actuator is accessible:	
item M1.1	-operating characteristics by the symbols:	
	-CBR of AC type  IEC 60417-6148	....
	-CBR of A type  IEC 60417-6149	....
	-CBR of B type  IEC 60417-6396	....
	or    IEC 60417-6149+6160+6297	....
item M1.2	-rated residual operating current $I_{\Delta n}$	....
item M1.3	- Limiting non-actuating time ad 2 $I_{\Delta n}$ for time-delay type by the symbol $\Delta t$ followed by the time in ms	....
item M1.4	-maximum rated current of the monitored circuit $I_n$	....
item M1.5	-operating means of the test device by letter "T"	....
Data marked on the product:		
item M2.1	-manufacturer's name or trade mark	....
item M2.2	-type designation or catalogue reference	....
item M2.3	-IEC 60947-2	....
item M2.4	-rated voltage or rated source $U_s$	....
item M2.5	-rated voltage of the monitored circuit $U_n$	....
item M2.6	-rated impulse voltage of the monitored circuit $U_{imp}$	....
Data provide in Manufacturer's literature		
item M3.1	-rated frequency of the voltage source	....
item M3.2	-rated impulse withstand voltage of the voltage source $U_{imp}$	....
item M3.3	-output characteristics and/or specified current breaking device/s	....
item M3.4	-rated residual non-operating current if differ from 0,5 $I_{\Delta n}$ $I_{\Delta no}$	....
item M3.5	-rated frequency of the monitored circuit	....
item M3.7	-rated conditional short-circuit current $I_{cc}$	....
	-rated short-time withstand current $I_{cu}$	....
item M3.8	-rated conditional residual short-circuit current $I_{\Delta n}$	....
item M3.9	-IP code (Annex C of IEC 60947-1:2007)	....
item M3.10	-position of use and mounting precautions	....
	-wiring diagram	....
continue into the follow page		
		Form 30
Test laboratory: IEC 60947-2: 2016 + AMD1:2019 LOVAG TRF 60947-2		
EN 60947-2: 2017 + AMD1:2020		Edition 5.1a


**LOVAG Assessment Report**

st page

**LOVAG Comparison report**

1st page

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<b>Assessment report N°</b> .....		
Test laboratory	: .....	
Applicant	: .....	
Manufacturer	: .....	
Test object	: .....	
Type designation	: .....	
Date(s) of test(s)	: .....	
IEC Standard for test	: 61439-2: 2011	
In conjunction with	: 61439-2: 2011	
EN Standard for test	: 61439-1: 2011	
In conjunction with	: 61439-1: 2011	
Test sequence(s)	: .....	
Test results:	: .....	
This Test Report consists of: .... pages LOVAG assessment report forms and .... other pages		
Date of issue: .....		
<u>Authorized Representative of Lovag Certification Body</u>	<u>Client responsible of the assessment proposal</u>	
Name: .....	Name: .....	
Function: .....	Function: .....	
Signature: .....	Signature: .....	
note: The test result relates only to the items tested. The test report shall not be reproduced except in full without the written approval of the test laboratory	LOVAG ARF 61439-2 Edition 2.0d Form 1	

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<b>Comparison report N°</b> .....		
Test laboratory	: .....	
Applicant	: .....	
Manufacturer	: .....	
Test object	: .....	
Type designation	: .....	
Date(s) of test(s)	: .....	
IEC Standard for test	: 61439-2: 2011	
In conjunction with	: 61439-2: 2011	
EN Standard for test	: 61439-1: 2011	
In conjunction with	: 61439-1: 2011	
Test sequence(s)	: .....	
Test results:	: .....	
This Test Report consists of: .... pages LOVAG comparison report forms and .... other pages		
Date of issue: .....		
<u>Authorized Representative of Lovag Certification Body</u>	<u>Client responsible of the comparison proposal</u>	
Name: .....	Name: .....	
Function: .....	Function: .....	
Signature: .....	Signature: .....	
note: The test result relates only to the items tested. The test report shall not be reproduced except in full without the written approval of the test laboratory	LOVAG CRP 61439-2 Edition 2.0d form 1	