

Test Report

TEST OBJECT	Polymer insulated automatic circuit recloser
DESIGNATION	EPR-1 3 Poles 15.5 kV 630 A 16 kA 50/60 Hz
APPLICANT	Entec Electric & Electronic Co., Ltd. 225-38 Choirubaekro Bongdam-eup Hwaseong-city Gyeonggi-do Korea
MANUFACTURER	Entec Electric & Electronic Co., Ltd. 225-38 Choirubaekro Bongdam-eup Hwaseong-city Gyeonggi-do Korea
DATE OF TESTS	2022-06-10 ~ 2022-06-23
ISSUED NUMBER	22TC200606

The test object, constructed complying with the description, drawings and photographs incorporated in this Test Report has been subjected to the performance tests in accordance with

IEC 62271-111:2019 7.7

The values obtained and the general performance are considered to comply with the above Standard and to justify the ratings as listed on page No.4.

This Test Report applies only to the test object. The responsibility for conformity of any object having the same designations with that tested rests with the Manufacturer.

This Test Report comprises 18 sheets in total.

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Prepared by



Chang, Ki-sung

Approved by



Kim, Ji-hwan

Date of issue

2022-07-27

An Acting President



[DF-HH-7081-05/02]



Summary of tests

Standard IEC 62271-111:2019

	Test Item(s)	Comment
7.7	Verification of the IP coding on main circuit enclosure	Pass

♣ IEC GUIDE 115 was applied as the decision rule.



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Ratings

Polymer insulated automatic circuit recloser

IP code

IP68

ELECTROCON SRL



Identification of test object**Assigned by manufacturer****Polymer insulated automatic circuit recloser**

Manufacturer	Entec Electric & Electronic Co., Ltd.
Designation	EPR-1
Serial No.	22030001
Date of manufacture	2022.03
Number of poles	3 Poles
Maximum voltage	15.5 kV
Continuous (normal) current	630 A
Frequency	50/60 Hz
Rated short-time withstand current	16 kA



List of drawing(s)

The manufacturer has guaranteed that the test object submitted has been manufactured in accordance with the following drawings. KERI has verified that these drawings adequately represent the test object.

The following drawings have been included in this test report.

Ref. No.	Drawing No.(Rev. No.)	Title	Date
001	EPR1-KE001(0)	LAY OUT	2019-04-10

The following drawings have been returned to the manufacturer and listed only for reference.

Ref. No.	Drawing No.(Rev. No.)	Title	Date
002	EPR1-KE001-D(0)	15kV O-ring and Packing Detail	2022-07-11



General

Approved by :

Kim, Ji-hwan

Electrical Technology Convergence Laboratory

Tested by :

Chang, Ki-sung

Electrical Technology Convergence Laboratory

Witnessed by :

Kim, Sang-min

Entec Electric & Electronic Co., Ltd.

Yoo, Wan-yong

Entec Electric & Electronic Co., Ltd.

Measurement uncertainty

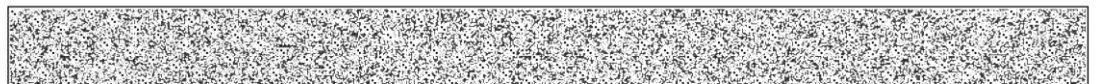
N.A.



The others

This test report is NOT related to KS Q ISO/IEC 17025 and KOLAS.
The tests were carried out on the test object submitted by the applicant.

ELECTROCON SRL



Test results

	Test item	Location	Page
1	Verification of the IP coding on main circuit enclosure	KERI-C2	10

KERI-C2 : KERI Electrical Apparatus Evaluation Division(Ansan)
111, Hanggaul-ro, Sangnok-gu, Ansan-si, Gyeonggi-do, Republic of Korea



1. Verification of the IP coding on main circuit enclosure

Test Date 2022-06-10 ~ 2022-06-23

1) Protection against access to hazardous parts

Test conditions

Serial No.	22030001 (main body)
Atmospheric condition	22.7 °C, 58.1 % R.H., 1 004 hPa
IP Code	IP6X
Access probe	Test wire 1.0 mm diameter, 100 mm long
Test force	1 N \pm 10 %

Test requirements

The access probe shall not penetrate.

Test results

No penetration.



2) Protection against solid foreign objects**Test conditions**

Serial No.	22030001 (main body)
Atmospheric condition	22.9 °C, 64.8 % R.H., 1 006 hPa
IP Code	IP6X
Dust chamber	Category 1
Test duration	8 h

Test requirements

No ingress of dust.

Test results

No ingress.



3) Protection against ingress of water**Test conditions**

Serial No.	22030001 (main body)
Atmospheric conditions	25.2 °C, 54 % R.H., 1 015 hPa
IP Code	IPX8
Height of enclosure	more than 850 mm
Water-level on enclosure	the highest point of enclosure is located 150 mm below the surface of the water
Water temperature	not differ from that of the equipment by more than 5 K
Test duration	2 h

Test requirements

Ingress of water in quantities causing harmful effects shall not be possible when the enclosure is continuously immersed in water under conditions which shall be agreed between manufacturer and user.

Test results

No ingress of water.

Remarks

This test item was performed at the applicant's designated site (Entec Electric & Electronic Co., Ltd.).



4) Power-frequency withstand tests

Test conditions

Serial No.	22030001 (main body)
Atmospheric conditions	25.2 °C, 86.0 % R.H., 999 hPa
Atmospheric correction factor	1.000
Condition of test object	after IP tests
Test voltage	50 kV
Test frequency	60 Hz
Test duration	1 min

Test results

Voltage applications		Switching device	Test results
Phase to earth	ABC - abcF	Closed	Withstand
Between phases	ACac - BbF		Withstand
	Bb - ACacF		Withstand
Across open switching device	ABC - abcF	Open	Withstand



Photos



(IP6X)

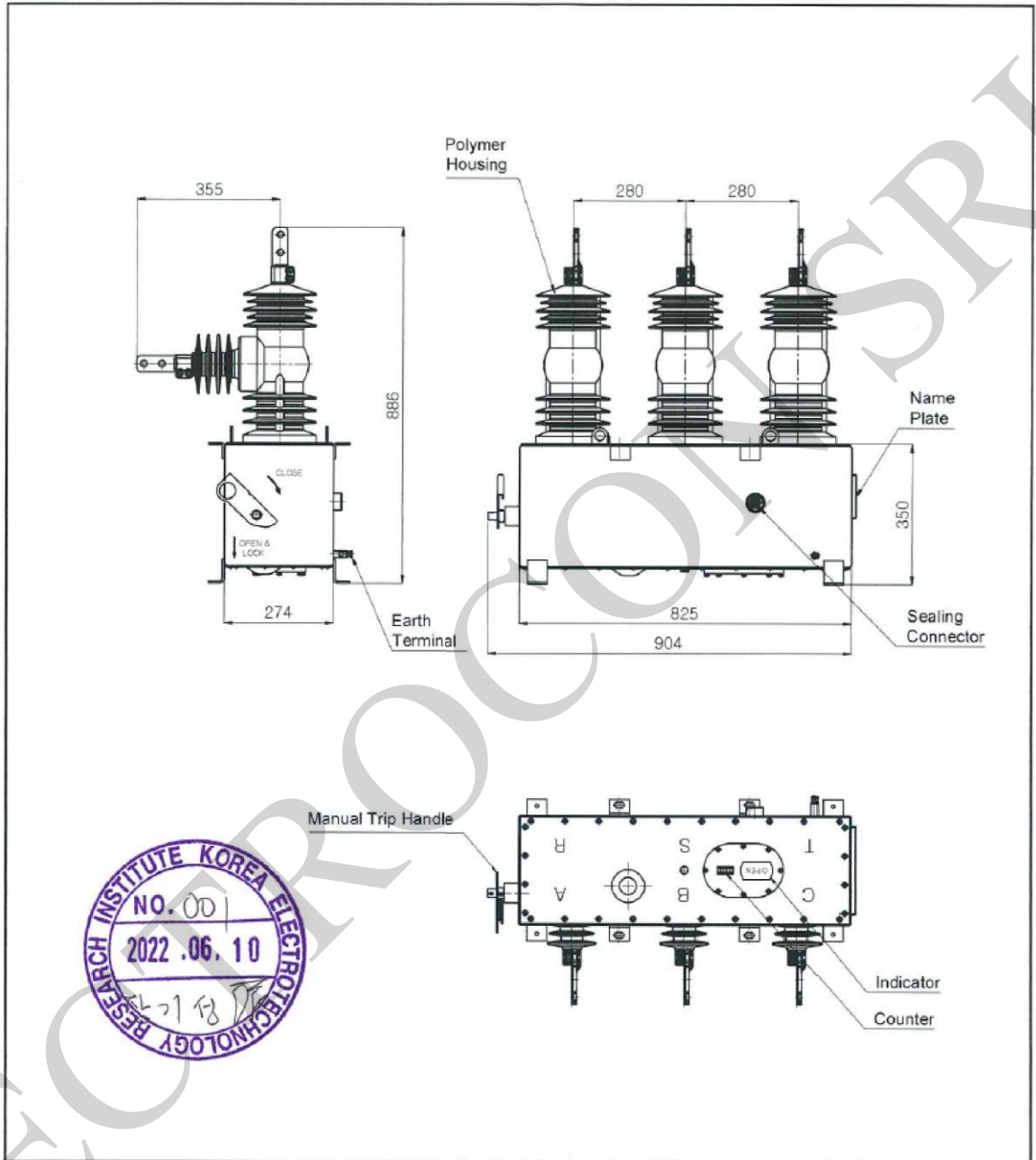


(IPX8)

Verification of the IP coding on main circuit enclosure



Drawing(s)



품번 NO.	품명 DESCRIPTION	재질 MATERIAL	수량 Q'TY	규격 SPEC	도번 DWG.NO.	비고 REMARK
제도 DRAWN	설계 DESIGNED	검도 CHECKED	승인 APPROVED	공차 TOLERANCE	작성일 DATE	척도 SCALE
	Shin Y.S.	Kim T.H.	Kim Y.J.	±3%	2019.04.10	N/S
ENTEC ELECTRIC & ELECTRONIC CO.,LTD.				도명 TITLE	LAY OUT	
				도번 DWG.NO.	EPR1-KE001	개정 REV.
				관련도면 REF.NO.		0

LAY OUT



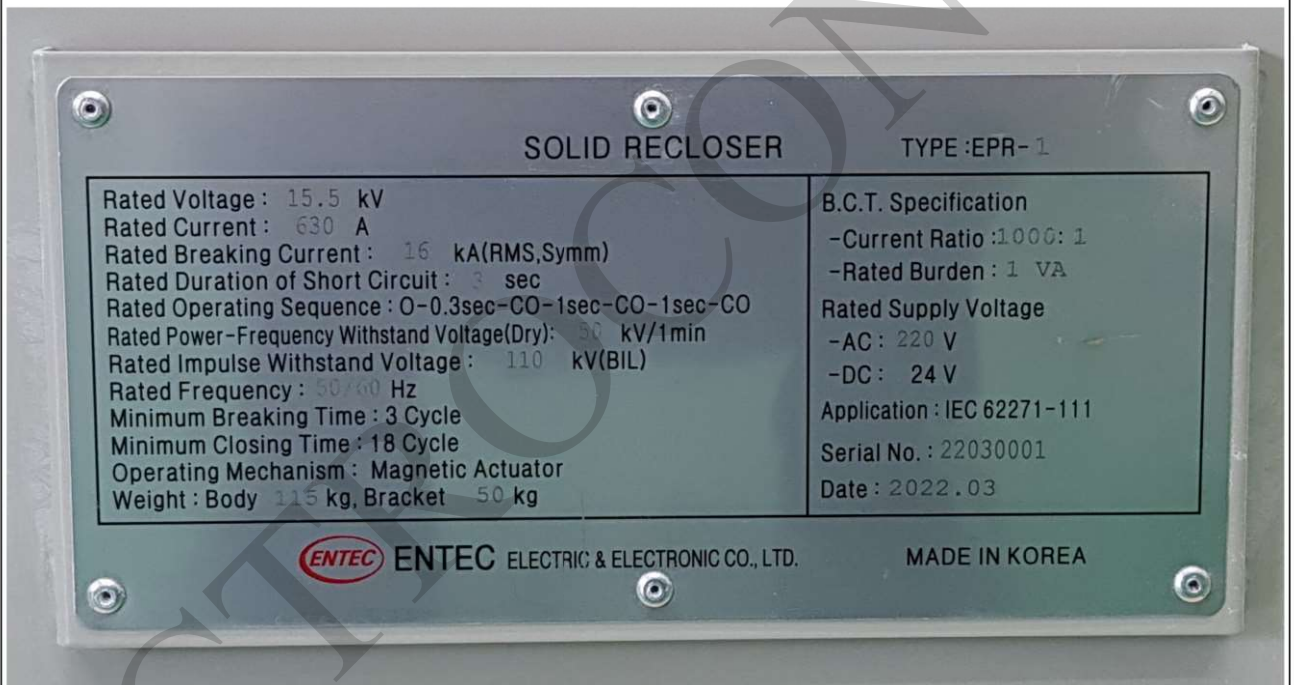
Attachment



Photo_Test object



Attachment



Photo_Nameplate



INFORMATION SHEET

KERI(Korea Electrotechnology Research Institute) issues following types of Test Documents.

1. STL Type Test Certificate

This Certificate is the most prestigious records of Type Tests performed in compliance with IEC standards and regional or national standards that are identical to corresponding IEC standards following STL Guide and Rules. This Certificate provides the verification of the rated characteristics of the test object.

2. KERI Type Test Certificate

This Certificate is the records of Type Tests performed in compliance with IEC standards and regional or national standards that are identical to corresponding IEC standards following STL Rules and KERI certification procedures. This Certificate provides the verification of the rated characteristics of the test object.

3. Type Test Report

This Report is the records of a complete series of Type Tests performed in compliance with the authorized standard recognized by KERI following KERI Testing Regulations.

4. Test Report

This Report is the records of one or more tests performed in compliance with authorized standards.

5. Record of Test Results

This is the records of the performed tests according to the specifications or instructions presented by the applicant.

- The authenticity of the test results can be identified at the following website : https://trca2.keri.re.kr/KERI_CUS_PORTAL/main.lims
- For further information, please visit KERI website(www.keri.re.kr) or contact Testing Management Department(+82-55-280-1111).

End.

