



TC-5389

ELECTRICAL RESEARCH AND DEVELOPMENT ASSOCIATION

(Accredited by the National Accreditation Board for Testing and Calibration Laboratories, Govt. of India)

ERDA Road, Makarpura Industrial Estate, Vadodara-390 010, India.

EPABX : +91 (0265) 2642942, 2642964, 2642377, 3043128 / 29 / 30 / 31 / 33

Fax : +91 (0265) 2638382

E-mail : erda@erda.org

Web : http://www.erda.org



RP-2425-019455

TEST REPORT**ULR NO.: TC538924000023178F****SHEET NO.: 1 OF 12**

NAME & ADDRESS OF CUSTOMER M/s. Europoxy FZCO Jabal Ali, Freezone Dubai, United Arab Emirates 261774	REPORT NO.: RP-2425-019455 DATE OF ISSUE: 28.09.2024	
	CUSTOMER REF. NO. : Letter DATED : 03.07.2024	
	DATE OF SAMPLE RECEIPT 08.08.2024	DATE OF TESTING 20.09.2024 to 28.09.2024
SAMPLE DESCRIPTION (As provided by customer) Single Pole 3.6 kV, 4000 A Bushing Rated Highest Voltage (Um): 3.6 kV Rated Current : 4000 A Insulation level : 10 kVrms / 40 kVp	SAMPLE IDENTIFICATION Serial No. : EPY360224-30 Year of Mfg. : 2024 Make: M/s. Europoxy FZCO ERDA Sample Code No.: ERDA-00594937	
TEST DETAILS As per SHEET NO.: 2 OF 12 ENCLOSURES: DRG. No.: 1) EPY-4000-LB002 Revision No. 1 2) EPY-4000-22-004 Revision No. 1 WITNESSED BY: Mr. Vatsal Kansara - M/s. Europoxy FZCO REMARKS: The above sample conforms to the requirement of above mentioned test specification with respect to the tests carried out.	TEST SPECIFICATION IEC: 60137 (2017)	
CHECKED BY 	T.S. VISHWAKARMA APPROVED BY	
Note : 1. This report relates only to the particular sample received for testing in good condition at ERDA, Vadodara. 2. This report cannot be reproduced in part under any circumstances. 3. Publication of this report requires prior permission in writing from Director, ERDA. 4. This report shall not be used for any purpose such as PR brochures, propaganda, advertisement and/or legal proceedings, unless for the granted purpose. 5. Only the tests asked for by the customer have been carried out. 6. Particulars of manufacturer/supplier, given in this report are based on information supplied by the customer, along with the test request/sample. ERDA does not assume any responsibility for the correctness of the information for above mentioned Sample Under Test (SUT). ERDA will not be responsible for any changes in SUT made after the test. This test report is given as per instrument status while testing. 7. In case of any dispute, Vadodara will be the exclusive jurisdiction & shall be construed as where the cause has arisen. Caution: ERDA is not responsible for the authenticity of photocopied or reproduced test reports. ERDA provides support to customers for verification of the authenticity of test reports issued by ERDA within 10 years of date of issue of report.		



TC 3695565



TC-5389

ELECTRICAL RESEARCH AND DEVELOPMENT ASSOCIATION

(Accredited by the National Accreditation Board for Testing and Calibration Laboratories, Govt. of India)

ERDA Road, Makarpura Industrial Estate, Vadodara-390 010, India.

EPABX : +91 (0265) 2642942, 2642964, 2642377, 3043128 / 29 / 30 / 31 / 33

Fax : +91 (0265) 2638382

E-mail : erda@erda.org

Web : http://www.erda.org

**ULR NO.: TC538924000023178F****Discipline: Electrical****Group: High Voltage Test Facility****REPORT NO.: RP-2425-019455****SHEET NO.: 2 OF 12****DATE OF ISSUE : 28.09.2024****TEST DETAILS:**

1.	Routine Test before series of type test	Test Specifications
1.1	Visual Examination	As per cl. no. 9.11 of IEC: 60137:2017
1.2	Verification of dimensions	As per cl. no. 9.11 of IEC: 60137:2017
1.3	Measurement of partial discharge quantity	As per cl. no. 9.5 of IEC: 60137:2017
2.	Type test	
2.1	Dry lightning impulse voltage withstand test	As per cl. no. 8.4 of IEC: 60137:2017
2.2	Dry Power frequency voltage withstand test	As per cl. no. 8.2 of IEC: 60137-2017
2.3	Wet Power frequency voltage withstand test	As per cl. no. 8.2 of IEC: 60137-2017
2.4	Cantilever Load Test	As per cl. no. 8.10 of IEC: 60137-2017
3.	Routine test after series of type test	
3.1	Measurement of partial discharge quantity	As per cl. no. 9.5 of IEC: 60137:2017
3.2	Visual Examination	As per cl. no. 9.11 of IEC: 60137:2017
3.3	Verification of dimensions	As per cl. no. 9.11 of IEC: 60137:2017

CHECKED BY

TC 3695566



TC-5389

ELECTRICAL RESEARCH AND DEVELOPMENT ASSOCIATION

(Accredited by the National Accreditation Board for Testing and Calibration Laboratories, Govt. of India)

ERDA Road, Makarpura Industrial Estate, Vadodara-390 010, India.

EPABX : +91 (0265) 2642942, 2642964, 2642377, 3043128 / 29 / 30 / 31 / 33

Fax : +91 (0265) 2638382

E-mail : erda@erda.org

Web : http://www.erda.org

**ULR No.: TC538924000023178F****Discipline:** Electrical Testing**Group:** Transmission Line Equipment & Accessories**REPORT NO:** RP-2425-019455**SHEET NO. :** 3 OF 12**DATE OF ISSUE :** 28.09.2024

Sr. No.	Particular of Tests & Cl. No.	Requirement as per Specification	Obtained Value/ Observation	Remarks
1.1	Visual inspection [Cl. No. 9.11 of IEC 60137:2017]	No surface defects shall be tolerated which could affect the satisfactory performance in service.	No surface defects was observed which could affect the satisfactory performance in service.	Conforms
1.2	Dimensional check [Cl. No. 9.11 of IEC 60137:2017]	As per drawing No. EPY-4000-22-004-01	Conforms to drawing	Conforms

Note: Testing was witnessed by Mr. Vatsal Kansara, Quality Manager, M/s. Europoxy FZCO

CHECKED BY



TC 3699978



TC-5389

ELECTRICAL RESEARCH AND DEVELOPMENT ASSOCIATION

(Accredited by the National Accreditation Board for Testing and Calibration Laboratories, Govt. of India)

ERDA Road, Makarpura Industrial Estate, Vadodara-390 010, India.

EPABX : +91 (0265) 2642942, 2642964, 2642377, 3043128 / 29 / 30 / 31 / 33

Fax : +91 (0265) 2638382

E-mail : erda@erda.org

Web : http://www.erda.org

**ULR NO.: TC538924000023178F****REPORT NO.: RP-2425-019455****SHEET NO.: 4 OF 12****DATE OF ISSUE : 28.09.2024**

Sr. No.	Particulars of Test and Cl. No.	Requirements as per specification	Obtained Value	Remarks
1.3	Measurement of partial discharge quantity (As per cl. no. 9.5 of IEC: 60137-2017) Pre-stress Voltage: 10 kVrms for 60 sec Measurement partial discharge quantity shall be carried out - At $1.5U_m/\sqrt{3} = 3.1$ kVrms - At $1.05U_m/\sqrt{3} = 2.2$ kVrms - Where $U_m=3.6$ kVrms	Max. 10 pC Max. 05 pC	0.3 pC 0.3 pC Ambient temp.: 30.8°C	Conforms Conforms

CHECKED BY



TC 3695567



TC-5389

ELECTRICAL RESEARCH AND DEVELOPMENT ASSOCIATION

(Accredited by the National Accreditation Board for Testing and Calibration Laboratories, Govt. of India)

ERDA Road, Makarpura Industrial Estate, Vadodara-390 010, India.

EPABX : +91 (0265) 2642942, 2642964, 2642377, 3043128 / 29 / 30 / 31 / 33

Fax : +91 (0265) 2638382

E-mail : erda@erda.org

Web : http://www.erda.org

**ULR NO.: TC538924000023178F****REPORT NO.: RP-2425-019455****SHEET NO.: 5 OF 12****DATE OF ISSUE : 28.09.2024****2.1 Dry lightning impulse voltage withstand test**

(As per cl. no. 8.4 of IEC 60137-2017)

Atmospheric condition : Dry bulb Temperature : 30.0°C
Wet bulb Temperature : 25.0°C
Atmospheric Pressure : 753 mm of Hg

Test Parameters:

Rated Voltage : 3.6 kV,

Test Voltage : 40 kVp $\pm$ 3%

No. of Impulses to be applied : 15 +ve & 15 -ve Polarity Impulses

Test Observation:

Calibration Pulse : 21.866 kVp

Wave Shape : 1.138 / 51.568 μ s

No. of Impulses applied : Calibration pulse, 15 +ve & 15 -ve Polarity Impulses

No. of Impulses recorded : Calibration pulse, First & Last Impulses for both polarities

No. of Shot	Test Voltage Applied in kVp	
	Positive Polarity	Negative Polarity
1.	40.058	39.935
2.	40.005	40.039
3.	40.005	39.961
4.	39.998	40.031
5.	40.001	39.998
6.	39.996	40.010
7.	40.004	39.974
8.	39.995	39.999
9.	40.005	39.987
10.	40.003	40.033
11.	40.009	39.999
12.	39.996	40.003
13.	40.012	39.967
14.	39.979	40.035
15.	40.016	39.980

REMARKS: Conforms**CHECKED BY**

TC 3695559



TC-5389

ELECTRICAL RESEARCH AND DEVELOPMENT ASSOCIATION

(Accredited by the National Accreditation Board for Testing and Calibration Laboratories, Govt. of India)

ERDA Road, Makarpura Industrial Estate, Vadodara-390 010, India.

EPABX : +91 (0265) 2642942, 2642964, 2642377, 3043128 / 29 / 30 / 31 / 33

Fax : +91 (0265) 2638382

E-mail : erda@erda.org

Web : http://www.erda.org



ULR NO.: TC538924000023178F

REPORT No.: RP-2425-019455

DATE OF ISSUE: 28.09.2024

SHEET NO. 6 OF 12

Dry lightning impulse voltage withstand test

CALIBRATION PULSE



CH1 : Divider:576.290 V/V Level:23% Sampling:125.00 MS/s Range:±50.00 Vp Trigger:Level 10%



TC 36955563

Pravech

CHECKED BY



TC-5389

ELECTRICAL RESEARCH AND DEVELOPMENT ASSOCIATION

(Accredited by the National Accreditation Board for Testing and Calibration Laboratories, Govt. of India)

ERDA Road, Makarpura Industrial Estate, Vadodra-390 010, India.

EPABX : +91 (0265) 2642942, 2642964, 2642377, 3043128 / 29 / 30 / 31 / 33

Fax : +91 (0265) 2638382

E-mail : erda@erda.org

Web : http://www.erda.org



ULR NO.: TC538924000023178F

REPORT No.: RP-2425-019455

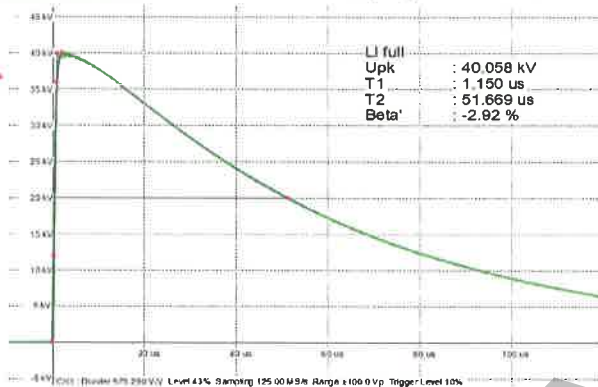
DATE OF ISSUE: 28.09.2024

SHEET NO. 7 OF 12

Dry lightning impulse voltage withstand test

FIRST IMPULSE

CH: 1



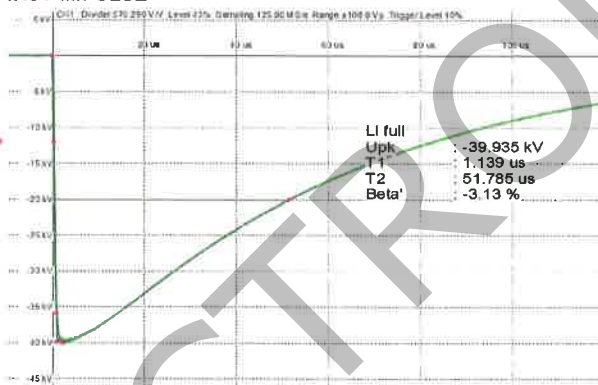
LAST IMPULSE

CH: 1



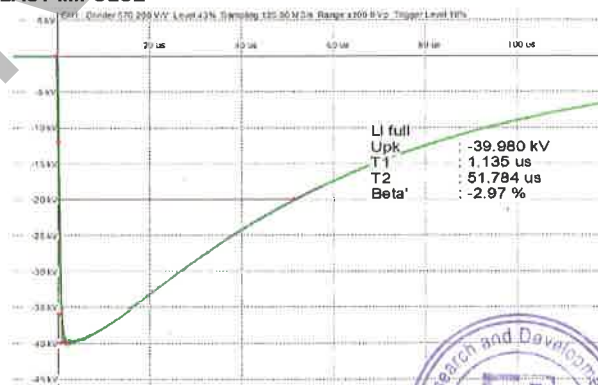
FIRST IMPULSE

CH: 1



LAST IMPULSE

CH: 1



CHECKED BY

Praveen

TC 3695564



TC-5389

ELECTRICAL RESEARCH AND DEVELOPMENT ASSOCIATION

(Accredited by the National Accreditation Board for Testing and Calibration Laboratories, Govt. of India)

ERDA Road, Makarpura Industrial Estate, Vadodara-390 010, India.

EPABX : +91 (0265) 2642942, 2642964, 2642377, 3043128 / 29 / 30 / 31 / 33

Fax : +91 (0265) 2638382

E-mail : erda@erda.org

Web : http://www.erda.org

**ULR NO.: TC538924000023178F****REPORT NO.: RP-2425-019455****SHEET NO.: 8 OF 12****DATE OF ISSUE : 28.09.2024****2.2 Dry power-frequency voltage withstand test**

(As per cl. no. 8.2 of IEC 60137-2017)

Atmospheric condition : Dry bulb Temperature : 30.0 °C
Wet bulb Temperature : 25.0 °C
Atmospheric Pressure : 752 mm of Hg

Requirements as per specification :

The test voltage of 10 kV AC at 50 Hz shall be applied between H.V. terminal and Earth for one minute.

Obtained Value : Withstood**Remarks** : Conforms**2.3 Wet power-frequency voltage withstand test**

(As per cl. no. 8.2 of IEC 60137-2017)

Atmospheric condition : Dry bulb Temperature : 30.0 °C
Wet bulb Temperature : 25.0 °C
Atmospheric Pressure : 752 mm of Hg

Requirements as per specification :

The test voltage of 10 kV AC at 50 Hz shall be applied between H.V. terminal and Earth for one minute duration under artificial rainfall condition.

Obtained Value : Withstood**Remarks** : Conforms**CHECKED BY****TC 3695560**



TC-5389

ELECTRICAL RESEARCH AND DEVELOPMENT ASSOCIATION

(Accredited by the National Accreditation Board for Testing and Calibration Laboratories, Govt. of India)

ERDA Road, Makarpura Industrial Estate, Vadodara-390 010, India.

EPABX : +91 (0265) 2642942, 2642964, 2642377, 3043128 / 29 / 30 / 31 / 33

Fax : +91 (0265) 2638382

E-mail : erda@erda.org

Web : http://www.erda.org

**ULR No.: TC538924000023178F****Discipline:** Electrical Testing**Group:** Transmission Line Equipment & Accessories**REPORT NO:** RP-2425-019455**SHEET NO. :** 9 OF 12**DATE OF ISSUE :** 28.09.2024

Sr. No.	Particular of Tests & Cl. No.	Requirement as per Specification	Obtained Value/ Observation	Remarks
2.4	Cantilever load withstand test [Cl. No. 8.10 of IEC 60137:2017] [The completely assembled bushing was installed vertically. Then the load of 3150 N* applied perpendicular to the axis of the bushing at the mid-point of the terminal for 60 s]	The bushing shall be considered to have passed the test if there is no evidence of damage (deformation, rupture or leakage) and if it has withstood a repetition of routine tests without significant change from previous results.	No evidence of damage was observed and withstood repetition of routine tests (i.e. Measurement of partial discharge quantity, Visual inspection and Dimensional check) without significant change from previous results.	Conforms

Note:

1] "*" as mentioned in drawing.

2] Testing was witnessed by Mr. Vatsal Kansara, Quality Manager, M/s. Europoxy FZCO

CHECKED BY**TC 3699938**



TC-5389

ELECTRICAL RESEARCH AND DEVELOPMENT ASSOCIATION

(Accredited by the National Accreditation Board for Testing and Calibration Laboratories, Govt. of India)

ERDA Road, Makarpura Industrial Estate, Vadodara-390 010, India.

EPABX : +91 (0265) 2642942, 2642964, 2642377, 3043128 / 29 / 30 / 31 / 33

Fax : +91 (0265) 2638382

E-mail : erda@erda.org

Web : http://www.erda.org

**ULR NO.: TC538924000023178F****REPORT NO.: RP-2425-019455****SHEET NO.: 10 OF 12****DATE OF ISSUE : 28.09.2024**

Sr. No.	Particulars of Test and Cl. No.	Requirements as per specification	Obtained Value	Remarks
3.1	Measurement of partial discharge quantity (As per cl. no. 9.5 of IEC: 60137-2017) Pre-stress Voltage: 10 kVrms for 60 sec Measurement partial discharge quantity shall be carried out - At $1.5U_m/\sqrt{3} = 3.1$ kVrms - At $1.05U_m/\sqrt{3} = 2.2$ kVrms - Where $U_m=3.6$ kVrms	Max. 10 pC Max. 05 pC	0.3 pC 0.3 pC Ambient temp.: 28.6°C	Conforms Conforms
 CHECKED BY  GEN/16-001				

TC 3695561



TC-5389

ELECTRICAL RESEARCH AND DEVELOPMENT ASSOCIATION

(Accredited by the National Accreditation Board for Testing and Calibration Laboratories, Govt. of India)

ERDA Road, Makarpura Industrial Estate, Vadodara-390 010, India.

EPABX : +91 (0265) 2642942, 2642964, 2642377, 3043128 / 29 / 30 / 31 / 33

Fax : +91 (0265) 2638382

E-mail : erda@erda.org

Web : http://www.erda.org

**ULR No.: TC538924000023178F****Discipline:** Electrical Testing**Group:** Transmission Line Equipment & Accessories**REPORT NO:** RP-2425-019455**SHEET NO. :** 11 OF 12**DATE OF ISSUE :** 28.09.2024

Sr. No.	Particular of Tests & Cl. No.	Requirement as per Specification	Obtained Value/ Observation	Remarks
3.2	Visual inspection [Cl. No. 9.11 of IEC 60137:2017]	No surface defects shall be tolerated which could affect the satisfactory performance in service.	No surface defects was observed which could affect the satisfactory performance in service. No change from previous result.	Conforms
3.3	Dimensional check [Cl. No. 9.11 of IEC 60137:2017]	As per drawing No. EPY-4000-22-004-01	Conforms to drawing. No change from previous result.	Conforms

Note: Testing was witnessed by Mr. Vatsal Kansara, Quality Manager, M/s. Europoxy FZCO**CHECKED BY****TC 3699953**



TC-5389

ELECTRICAL RESEARCH AND DEVELOPMENT ASSOCIATION

(Accredited by the National Accreditation Board for Testing and Calibration Laboratories, Govt. of India)

ERDA Road, Makarpura Industrial Estate, Vadodara-390 010, India.

EPABX : +91 (0265) 2642942, 2642964, 2642377, 3043128 / 29 / 30 / 31 / 33

Fax : +91 (0265) 2638382

E-mail : erda@erda.org

Web : http://www.erda.org



ULR NO.: TC538924000023178F

REPORT NO.: RP-2425-019455

SHEET NO.: 12 OF 12

DATE OF ISSUE : 28.09.2024

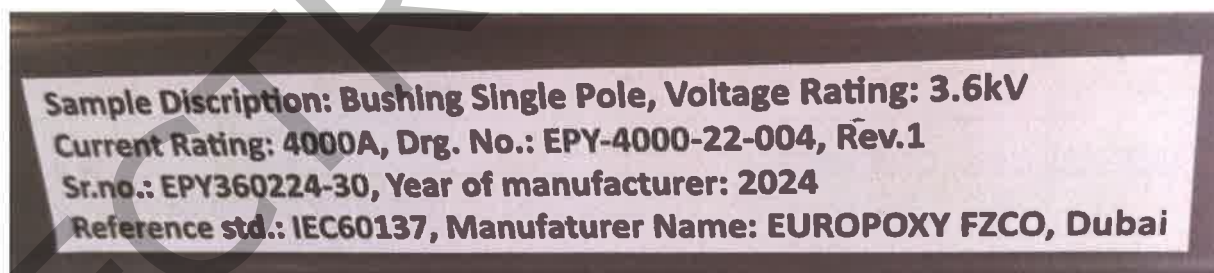
PHOTOGRAPH OF TEST SAMPLE



PHOTOGRAPH OF ERDA SAMPLE CODE NO.



PHOTOGRAPH OF NAME PLATE



CHECKED BY

Praveen



***** End Of Test Report *****

TC 3695562

Sample Description: Bushing Single Pole, Voltage Rating: 3.6kV
Current Rating: 4000A, Drg.NO: EPY-4000-22-004, Rev.1
Sr.no.: EPY360224-39 Year of Manufacturing: 2024
Reference Std.: IEC60137, Manufacturer Name: EUROPOXY EZCO, Dubai

20

Sample Description: Bushing Single Pole, Voltage Rating: 3.6kV
Current Rating: 4000A, Drg.NO: EPY-4000-22-004, Rev.1
Sr.no.: EPY360224-31, Year of Manufacturing: 2024
Reference Std.: IEC60137, Manufacturer Name: EUROPOXY FZCO, Dubai

20

Note:
All dimensions are in mm.

ERDA, MAKARPUKA

Test Report No. RP-2425-019455

Date 28/09/2024

Date _____
Product 3-6kV Bushing

Verified by Maya

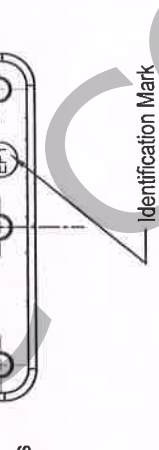
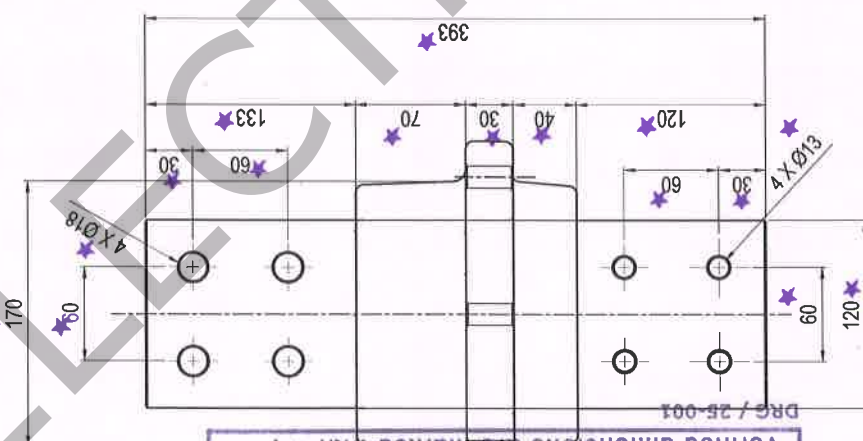
Verification of this drawing by CADDAs limited to relevant dimensional checks only. Verified dimensions are marked with 'x'.

DRG / 16-002

[illegible]

SPECIFICATION

SR NO	DETAILS	SPECIFICATIONS
-------	---------	----------------



1

Note:

SCALE	FORMAT	
-------	--------	---

ANGLE POLE
3.6kV/4000A



EuroPoxy 7300

2