



- Leakage path : 810 mm.
- Flash over path : 35 mm.
- Diameter of sheds : 100 mm.
- Number of sheds : 7.
- Terminations Lugs: Compression Lugs.

3- 36 kV three core premolded joint with the following specifications:

- Manufacturer : ELSEWEDY SEDCO/ELASTIMOLD EGYPT Subsidiary of ELSEWEDY ELECTRIC.
- Type : PCJ 36kV.
- Material : EPDM Rubber.
- Joint Connector: Compression AL connector

▪ **Description of the Equipment:**

- High voltage reactor- 400 kV - 5000 kVA - 50 Hz - Type :(RSK) - Serial No. (204322/99). Certificate No:(216/23/2020)
- PD Detector - Type: (IE 57). Certificate No. (272/23/2020)
- Impulse voltage generator 800 kV - 40 kJ - Type IP40/800M. Certificate No. (269/23/2020)

▪ **Test Samples:**

- Test samples were chosen under the responsibility of the client.

▪ **Tests:**

- 1- Dry AC voltage test and DC voltage test.
- 2- Wet AC voltage test for outdoor termination.
- 3- Partial discharge test at ambient temperature.
- 4- Impulse voltage test at elevated temperature.
- 5- Thermal cycles voltage test in air and thermal cycles voltage test under water.
- 6- Immersion test for outdoor termination only.
- 7- Partial discharge test
 - 7-1. at elevated temperature.
 - 7-2. at ambient temperature.
- 8- Impulse voltage test at ambient temperature.
- 9- Dry AC voltage test.
- 10- Examination.

▪ **Test Method and Results:**

1- **Dry AC voltage test and voltage test.**

Testing Date: 24/11/2020

Testing Engineer: Mahmoud Shawky

- The test samples were subjected to a dry AC voltage test and DC voltage test in accordance with test No. 1 in tables (5, 6) of IEC 60502-4.
- The dry AC voltage was raised gradually to and held at $4.5 U_0$ for 5 min.
- The DC voltage was raised gradually to and held at $4 U_0$ for 15 min.
- The result of the voltage tests is shown in the following table:

M. K. Shawky





DIN EN ISO 9001:2000
Zertifiziert: 01 110 028214



LABORATORIES OF EXTRA HIGH
VOLTAGE RESEARCH CENTER SECTOR
KM 27 Cairo- Alex. Desert Road
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TEST REPORT

Report No. (48 /2020)

- **CLIENT:** **EL SEWEDY CABLES.**
10th of Ramadan City, Industrial Zine .
- **Report Date:** 28 / 1 /2020
- **Place:**
- **LABORATORIES OF EXTRA HIGH VOLTAGE RESEARCH CENTER.**
- *Internal Code : TO - AC - 19 - 11 - 13 - 01 .*
- **Standard Specification:**
 - *IEC 60840 (2011) "Power cables with extruded insulation and their accessories for rated voltages above 30 kV (Um= 36 kV) up to 150 kV (Um = 170 kV).*
- **Requirements:**
 - *Type tests according to IEC 60840.*
- **Description of The Specimen:**
 - Loop System consist of power cable, cable straight joint, outdoor porcelain sealing end and outdoor composite sealing end with the following specification:
 - 1- **Power cable 38/66 kV with the following specifications:**
 - Manufacturer : EL SEWEDY CABLES.
 - Type : 38/66 kV/CU/XLPE/LEAD /HDPE - 1×2500 mm².
 - No. of Phases : 1
 - Insulation : XLPE
 - Conductor Material : Copper
 - Conductor cross-section : 2500 mm²
 - Metallic Screen : LEAD
 - Sheath Material : HDPE- ST₇
 - Sheath Color : Black
 - Rated Frequency : 50 Hz
 - Water Penetration Design : A barriers are included which prevents longitudinal water penetration along the conductor (swelling powder), the outer surface of the conductor (water blocking tape), the gap between the outer surface of the insulation screen and the metallic screen and over the metallic screen (water blocking tape)

