

M.O.M

250MVA Transformer

The transformer were tested during the period 23- January- 2019 to 6-February - 2019 on the transformer 250 MVA (220/34/34) KV S/N (013071801) for Elco Steel S/S

In the presence of the following committee:

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|------------------------------|------------------------|
| Eng.Ahmed Aly Elebrashy | EETC |
| Eng.Fekry Rafieq | |
| Eng.Mohamed Mahmoud Salama | |
| Eng. Hany Wahba Zakry | |
| Eng.Ahmed Ramadan Elbayadi | |
| Eng.Hossam Ahmed Abdel Fatah | |
| Eng.Mohamed Saeed Elsaid | |
| Eng.Abdel Wahab Selim | Elco Steel |
| Eng.Mohamed Kamal ElGewiny | SCG |
| Eng.Ahmed Mohamed Rashad | |
| Eng.Ahmed Sorour | El-sewedy PSP |
| Eng.Mohmoud Elmarghany | |
| Eng.Islam Shawky | |
| Eng.Ahmed Mohamed Hal | BV Egypt |
| Eng.Doaa Hegazy | El-sewedy Transformers |
| Eng.Mohamed Ghoniem | |
| Eng.Mohamed Khalil | |
| Eng.Mohamed El-bedeawy | |
| Eng.Islam Nasr | |
| Mr. Ahmed Elsayed | |

The bellow mentioned tests in contract that are all done with members from (EETC- PSP-Shaker-ELCO Steel and BV Egypt) in period 23- January- 2019 to 6-February - 2019

Routine, Type & Special Tests

- 1- Design and visual check.
- 2- Measurement of Voltage Turns Ratio and Check of Phase Displacement.
- 3- Measurement of Winding Resistance
- 4- Measurement of No Load Losses and No Load Current



Testing: Mohamed Khalil Mohamed El-Bedeawy Islam Nasr Ahmed Elsayed	Approved: Doaa Hegazy Mohamed Ghoniem 6/ 2/ 2019	EETC	PSP	Shaker	ELCO Steel
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(Handwritten signatures and initials)

- 5- Measurement of Harmonic
- 6- Measurement of short-circuit Impedance And Load Losses
- 7- On Load Tap Changer and all functional (Elec&Mech) test.(attached)
- 8- Marshaling cabinet and all functional (Elec&Mech) test. (attached)
- 9- Fans Consumption power measurement.
- 10- Measurement of Zero Sequence Impedance.
- 11- Applied voltage test (AV)
- 12- Oil breakdown voltage
- 13- Induced voltage test with partial discharge measurement (IVPD)
- 14- Measurement of Insulation Power Factor Tan δ And Capacitance of Winding
- 15- Measurement of Insulation Power Factor Tan δ And Capacitance of bushing
- 16- Measurement of Insulation Resistance
- 17- Measurements of CT's turns ratio & Resistance
- 18- Lighting Impulse Voltage Withstand Test with chopped wave.
- 19- Switching Impulse Test
- 20- Temp. Rise Test
- 21- Measurement of Acoustic Sound Level
- 22- Sweep Frequency Response (attached)
- 23- Dissolved Gas Analysis (attached)
- 24- Pressure tank test at 0.3 Bar (attached)

Test done without members from (EETC- PSP-Shaker-ELCO Steel and BV Egypt Eng. Ahmed Hal)

1- Vacuum deflection test on liquid immersed transformer. (certificate attached)

Tests haven't been done on transformer

- 1- Short circuit test
Similarity calculation has been submitted, approved and closed as per M.O.M date 26/12/2018 with (EETC – SCG – Elsewedy) as attached, for reference.
- 2- Transient voltage
Same point was closed with EETC as on transformer 175 MVA on 21/5/2018.

Tan Delta test comment

The transformer passed tan delta test and the value given in grantee is for oil not for transformer

Third party approval

All required documents related to third party has been sent to EETC.

All comments during inspection will be covered at site (attached list)

All required tests were performed on the transformer



Testing: Mohamed Khalil Mohamed El-Bedeawy Islam Nasr Ahmed Elsayed	Approved: Doaa Hegazy Mohamed Ghonaim 6/2/2019	EETC	PSP	Shaker	ELCO Steel
		<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>

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