

Report No.: 2503790

Power Transformer Test Report

Product Name: **Power Transformer**

Model: **S-M-250/10-0.4**

Manufacturer: **TSTY Electric Co., Ltd.**

Date: 18-03-2025

Routine Test Report

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1. Declare

Client: TSTY Electric Co., Ltd.
Name of product: Power transformer
Product code: ITS.710.2019
Type and size: S-M-250/10-0.4
Serial No.: 2503790
Manufacturer: TSTY Electric Co., Ltd.

2. Technical data

Nominal capacity: 250 KVA
Nominal voltage: 10 / 0.4 KV
Nominal current: 14.43 / 360.85 A
Tapping range: 10 ± 2*2.5% kV
Vector group: Yyn0
Type of cooling: ONAN

3. Test standard

- ① IEC60076 《Power Transformer》
- ② GB1094.1~2/GB1094.3/GB1094.5 《Power Transformer》
- ③ GB/T6451 《Three-phase oil-immersed power transformers technical parameters and requirements》
- ④ GB/T501 《Power Transformer Test Guidelines》
- ⑤ GB311.1 《High-voltage power transmission equipment insulation coordination》

Note: This report is a duplicate, one kept by manufacturer, another give to client/user.

4 Item of test and result

4.1 Insulation resistance test

Oil temperature: 14.2 °C

Test site		Resistance (MΩ)		Equipment used				
H.V.on ground & L.V.		≥5000		0-5000MΩ				
L.V.on ground & H.V.		≥5000						
4.2 Measurement of voltage ratio and the connection group label verification								
H.V.winding		L.V. winding	Change(K)	Test deviation			Vector group	
Tapping	Voltage (KV)	Voltage (KV)		AB / ab	BC / bc	CA / ca	Yyn0	
1	10.500	0.4	26.250	-0.06	-0.03	-0.04		
2	10.250		25.625	-0.05	-0.03	-0.04		
3	10.000		25.000	-0.06	0.02	-0.04		
4	9.750		24.375	0.00	0.00	0.00		
5	9.500		23.750	0.00	0.00	0.00		
4.3 Insulation oil test								
(90°C) Dielectric loss factor:				<u>0.16 %</u>				
Oil Breakdown Voltage:				<u>55 KV</u>				
4.4 Winding resistance								
				Oil temperature:			14.2 °C	
Winding		Test value(Ω)						Unbalance rate
H.V.	Tap	AB		BC		CA		
	1	4.974		4.982		4.968		0.28
	2	4.704		4.714		4.700		0.30
	3	4.444		4.456		4.442		0.31
	4	0.000		0.000		0.000		#DIV/0!
	5	0.000		0.000		0.000		#DIV/0!
L.V.	-	ao	0.003412	bo	0.003401	co	0.003449	1.40
	-	ab	0.006511	bc	0.006499	ca	0.006557	0.89
4.5 Outer voltage test								
Compressed site		Voltage (KV)		Time (S)		Result		
H.V.on ground & L.V.		35		60		Pass		
L.V.on ground & H.V.		5		60				
4.6 Induction voltage test								
Applied voltage (KV)		Induction voltage(KV)		Coefficient	Frequency (Hz)	Time (S)	Result	
L.V.		H.V.						
0.8		20		2	150	40	Pass	
4.7 No-Load loss and current test								

Rms voltage (KV)		No-load current	No-load losses
Average value	Rms value	1.647 A	0.4 KW
0.4	0.4	0.46 %	

4.8 Short-circuit impedance and load loss test

Oil temperature: 14.2 °C

Winding	Current (A)	Voltage (V)	Short circuit impedance (%)		Load lossess (KW)	
			Test	75°C Adjusted	Test	75°C Adjusted
H.V. to L.V.	14.43	391	3.91	4.01	2.924	3.008

4.9 Seal test

Test method	Pressure(MPa)	Time (h)	Residual pressure(MPa)	Result
By compressed dry air	0.02*10 ⁴	12	0.0185*10 ⁴	No leakage and damage

Test by:



Date: 2025-03-18

Power Transformer Qualified Certificate

Serial No.: 2503790

Manufacture date: 18-03-2025

S-M-250/10-0.4

Power transformer routine test

Test item/method & result are comply with standard IEC60076 / GB1094.1 ~ 2/ GB1094.3/ GB1094.5/GB/T6451 / JB/T501 /GB311.1, product testing by qualified, is ready to deliver.