ENR PFOR 11 version 00	ROUTINE TEST REPORT N°ENR PFOR 11 - 25TT1252	CAHORS

Type:	TRE FASER - TOTEM TPC		**Serial Number:**	**25TT1252**			**page 1/1**
Reference :	01310IIR03		**Losses level:**			**Year:**	**2025**
Power:	**100 kVA**	**Dielectric weight :**	220 kg	**Frequency:**			50 Hz
Standard:	**IEC 60076-1 to 6,IEC 60076-13**						
Cooling:	ONAN	**Total weight:**	1140 kg	**Dielectric:**	OLJE	**Connection symbol:**	**ZN(d)yn11**

Windings	**Nature**	**Tappings**							**I (A) RATED**
		1	**2**	**3**	**4**	**5**	**6**	**7**	
HV	Copper	23100V	22550V	22000V	21450V	20900V	20350	19800	2,62
LV	Copper	415V							139

DIELECTRICAL TEST

SEPARATE SOURCE VOLTAGE				**INDUCE VOLTAGE**			
	kV	**F**	**Time (s)**	**Supply**	**Volts**	**F (Hz)**	**Time (s)**
LV / HV + ground	6	50	60	**On LV side**	830	200	30
HV / LV + ground	50	50	60				

Earthing Reactor

Zo (Transformer + Earthing reactor) = 2526 Ω	**Ia (40°C) = 0.44 A**	**IX (40°C) = 15.1 A**	
Neutral current values	**Ia max = 0,375 A**	**Ix (40°C) = 15 A +/- 5%**	
Separate Source Voltage test for stabilization winding	6 kV	50 Hz	60 s
Separate Source Voltage test for earthing reactor	50 kV	50 Hz	60 s
Induced voltage test for earthing reactor	480 V	200 Hz	30 s

WINDING RESISTANCE MEASUREMENT

Temp 23,0°C

Nominal tapping	**HV (Ω)**				**LV (mΩ)**		
	AB	BC	CA		ab	bc	ca
	58,96	59,025	58,33		18,134	18,053	18,461

TRANSFORMER RATIO MEASUREMENT

TAPPING	**VOLTAGE**		**Theorical values**	**Measured values**
	HV	**LV**		
1	23100V	415V	96,41	96,41
2	22550V		94,11	94,12
3	22000V		91,82	91,81
4	21450V		89,52	89,55
5	20900V		87,23	87,23
6	20350V		84,93	84,93
7	19800V		82,64	82,63

LOSSES MEASUREMENT

TAPPING	**Nominal tapping**	**Contractual values**	**Tolerance**
No-load losses	**236W**	260W	+5 %
No-load current	**0,74%**		
Load losses at 75°C	**1385W**	1350W	+5 %
Total losses	**1621W**	1610W	+5 %
Impedance voltage at 75 °C	**3,80%**	4,00%	±10 %

Conclusion : Results of measurements and above mentionned tests are satisfactory.

Coordination diagramm : Nr 4078930 / HV Fuse : 10A

Installation and commissioning guide Nr : 40100832R03

Observation :Transformer free of PCB.

La Garde: Le Responsable des Essais :

L.SEIMANDI

Version	Date	Modification
00	**28 avril 2025**	Initial report

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