

XXXX 400KV STATION
TEST RESULTS OF ICT T8351/1

WINDING RESISTANCE MEASUREMENT (Conducted on _____)

TAP POSITION	WINDING RESISTANCE MEASURED			PRE - COMMISSIONING WINDING RESISTANCE		
	1 R1 - 2 R1	1 Y1 - 2 Y1	1 B1 - 2 B1	1 R1 - 2 R1	1 Y1 - 2 Y1	1 B1 - 2 B1
9b	281 m ohm	281 m ohm	280 m ohm	278 m ohm	274 m ohm	274 m ohm
9b (HV)	1 R1 - N 668 m ohm	1 Y1 - N 667 m ohm	1B1 - N 857 m Ohm	Not available		
9b (IV)	2 R1 - N 389 m ohm	2 Y1 - N 389 m ohm	2 B1 - N 579 m ohm	2 R1 - N 385 m ohm	2 Y1 - N 380 m ohm	2 B1 - N 379 m ohm
9b (LV)	R - Y 34 M Ohms	Y - B 23 m Ohms	B - R 24 m Ohms	R - Y 39.6 M Ohms	Y - B 41.3 m Ohms	B - R 37.8 m Ohms

FLOATING NEUTRAL VOLTAGE MEASUREMENT (Tap 9b) (Conducted on _____)

TEST RESULTS				PRE COMMISSIONING TEST RESULTS			
PRIMARY WINDING	VOLTAGE APPLIED	IV WINDING	VOLTAGE MEASURED	PRIMARY WINDING	VOLTAGE APPLIED	IV WINDING	VOLTAGE MEASURED
R - N	233.5 V	R - N	128.7 V	R - N	227.5 V	R - N	125.6 V
Y - N	230.4 V	Y - N	127.7 V	Y - N	226.6 V	Y - N	125.4 V
B - N	231.7 V	B - N	119.9 V	B - N	226.1 V	B - N	124.9 V
		N - E	0.62 V			N - E	1.0V

INSULATION RESISTANCE MEASUREMENTS (Conducted on _____)

TEST RESULTS				PRE COMMISSIONING TEST RESULTS	
	IR (15 SEC)	IR (60 SEC)	IR (600 SEC)	IR (60 SEC)	IR (600 SEC)
HV + IV/ E+L	60 K M OHMS	30 K M OHMS	90 K M OHMS	13 K M OHMS	21.5 K M OHMS
HV+IV+LV/E	75 K M OHMS	50 K M OHMS	80 K M OHMS	4 K M OHMS	7.2 K M OHMS
LV/E+HV+IV	75 K M OHMS	100 K M OHMS	95 K M OHMS	4.5 K M OHMS	8.5 K M OHMS
IV/LV	12.5 K M OHMS	15 K M OHMS	30 K M OHMS	35 K M OHMS	54.5 K M OHMS
HV/LV	10 K M OHMS	12.5 K M OHMS	25 K M OHMS	35 K M OHMS	54 K M OHMS

INSULATION RESISTANCE MEASUREMENTS

Tests conducted on _____)

Transformer Core - body		Core Bolt to Earth (B Phase side)		
At 1000V	1000 M ohms	I Bolt	At 1000V	Infinity
At 2000V	1600 M ohms		At 2000V	100 Kilo Mega Ohms
At 3000V	1500 M ohms	II Bolt	At 1000V	Infinity
At 4000V	1400 M ohms		At 2000V	100 Kilo Mega Ohms
At 5000V	1500 M ohms	III Bolt	At 1000V	Infinity
			At 2000V	100 Kilo Mega Ohms

MAGNETISATION CURRENT TEST (Conducted on _____)

Tap Position	Applied Voltage (HV Side)			Current Measured (HV side)		
	R - N	Y - N	B - N	R phase	Y phase	B phase
1	230.5 V	232.7 V	233.3 V	5 mA	5 mA	180 mA
2	230.7 V	233.1 V	232.7 V	6 mA	6 mA	180 mA
3	231.1 V	232.6 V	232.7 V	8 mA	8 mA	180 mA
4	231.2 V	233.5 V	232.8 V	8 mA	8 mA	180 mA
5	232.5 V	234.1 V	234.1 V	9 mA	9 mA	180 mA
6	230.5 V	229.9 V	228 V	13 mA	13 mA	190 mA
7	222.5 V	225.1 V	225.5 V	11 mA	11 mA	190 mA
8	222.6 V	225.3 V	225.3 V	12 mA	12 mA	190 mA
9b	221.8 V	224.5 V	224.6 V	12 mA	12 mA	200 mA
10	221.5 V	224.6 V	224.8 V	14 mA	14 mA	210 mA
11	221.4 V	224.4 V	224.2 V	15 mA	15 mA	210 mA
12	221.1 V	224.1 V	224.1 V	16 mA	16 mA	210 mA
13	221.3 V	224.4 V	224.3 V	17 mA	17 mA	210 mA
14	221.1 V	224.3 V	224.3 V	18 mA	18 mA	220 mA
15	220.7 V	223.5 V	223.6 V	20 mA	20 mA	220 mA
16	220.9 V	224.1 V	224.3 V	21 mA	21 mA	230 mA
17	221.5 V	224.2 V	224.3 V	22 mA	22 mA	230 mA

RATIO TEST (Conducted on _____)

Tap Position	Applied Voltage (HV Side)			Voltage Measured (IV side)		
	R - N	Y - N	B - N	R - N	Y - N	B - N
1	230.5 V	232.7 V	233.3 V	115.3 V	116.7 V	110.1 V
2	230.7 V	233.1 V	232.7 V	116.8 V	118.3 V	111.6 V
3	231.1 V	232.6 V	232.7 V	118.4 V	119.8 V	112.8 V
4	231.2 V	233.5 V	232.8 V	119.9 V	121.4 V	114.0 V
5	232.5 V	234.1 V	234.1 V	121.8 V	123.1 V	115.9 V
6	230.5 V	229.9 V	228.0 V	122.3 V	122.6 V	114.4 V
7	222.5 V	225.1 V	225.5 V	119.5 V	121.5 V	114.0 V
8	222.6 V	225.3 V	225.3 V	120.9 V	123.1 V	115.1 V
9b	221.8 V	224.5 V	224.6 V	121.9 V	124.2 V	115.9 V
10	221.5 V	224.6 V	224.8 V	123.4 V	126.4 V	117.6 V
11	221.4 V	224.4 V	224.2 V	124.8 V	127.2 V	118.3 V
12	221.1 V	224.1 V	224.1 V	126.2 V	128.7 V	119.5 V
13	221.3 V	224.4 V	224.3 V	128.0 V	130.6 V	120.9 V
14	221.1 V	224.3 V	224.3 V	127.6 V	132.1 V	122.1 V
15	220.7 V	223.5 V	223.6 V	130.9 V	133.6 V	123.3 V
16	220.9 V	224.1 V	224.3 V	133.3 V	135.7 V	125.0 V
17	221.5 V	224.2 V	224.3 V	135.0 V	137.7 V	126.5 V

WINDING RESISTANCE TEST (Conducted on _____)

[illegible]

WINDING RESISTANCE TEST (Conducted on _____)

Tap Position	HV -N (m Ohms)			Current measured (A)		
	R - N	Y - N	B - N	R Ph	Y Ph	B Ph
1	757	758	956	7.93	7.94	7.57
2	748	748	947	7.95	7.93	7.58
3	739	739	938	7.93	7.93	7.60
4	730	730	929	7.95	7.95	7.62
5	721	721	920	7.96	7.96	7.63
6	712	712	911	7.99	7.99	7.65
7	703	703	902	8.00	8.00	7.67
8	693	694	893	8.03	8.03	7.68
9b	684	685	883	8.05	8.05	7.70
10	693	694	893	8.03	8.03	7.68
11	703	703	902	8.02	8.02	7.66
12	712	712	911	8.00	8.00	7.65
13	720	721	920	7.99	7.99	7.63
14	729	730	929	7.97	7.97	7.61
15	740	740	938	7.95	7.95	7.60
16	748	748	947	7.94	7.94	7.58
17	758	758	957	7.93	7.92	7.56