

**Name of substation:**

Current Transformer of ACDB

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**Panel No:****Mechanical Inspection and Visual Check**

S. No	Details	Result	Remarks
1	Check for any physical defects or damage		
2	Verify name plate information to ensure accuracy		
3	Checked that the correct lugs were utilized on terminations.		

**Electrical Test**

S. No	Details	Result	Remarks
1	Insulation resistance test result.		
2	Winding resistance test.		
3	With a battery, conduct a polarity test or a flick test.		
4	Current primary injection ratio test.		
5	Test for magnetizing current (at least two points above knee point).		
6	Test for loop resistance (burden test).		

**Equipment Used for Test**

1. Insulation tester.
2. Digital low ohmmeter.
3. Polarity tester.
4. Primary current injection set.
5. Current source, multimeter.
6. Variac, step-up transformer (0-2kv)

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**Panel No:**

**Electrical Test**

**1. Insulation Resistance Test Report:**

Current Transformer Core	Output Result		
	R- Ø	Y- Ø	B- Ø
HV-LV			
HV-Ground			
LV-Ground			

**2. Secondary Winding Resistance Test Report:**

Core/ Winding Reference	Secondary Winding Resistance Output Result								
	R- Ø			Y- Ø			B- Ø		
	R <sub>m</sub> (Ω)	R <sub>c</sub> (Ω)	FAT AT 75°C (Ω)	R <sub>m</sub> (Ω)	R <sub>c</sub> (Ω)	FAT AT 75°C (Ω)	R <sub>m</sub> (Ω)	R <sub>c</sub> (Ω)	FAT AT 75°C (Ω)

Formula for calculating reference temperature from winding resistance.

$$R_c = R_a \frac{(234.2+75)}{(234.5+T_a)}$$

R<sub>m</sub> = Resistance that was measured at room temperature.

T<sub>a</sub> = Room temperature in \_\_\_\_ ° C

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### 3. Polarity Test (or) Flick Test Report:

Phase (Ø)	Polarity Result
<b>R</b>	
<b>Y</b>	
<b>B</b>	

### 4. Ratio Test (Current Primary Injection) Report:

Ratio %	Injected Primary Current	Expected/ Actual	Secondary Current		
			R-(Ø) Phase(A)	Y-(Ø) Phase (A)	B- (Ø)Phase (A)
		Expected			
		Actual			
		Percentage Error			
		Expected			
		Actual			
		Percentage Error			

### 5. Magnetizing Current Test Report:

CT Number	CT Ratio	Excitation Voltage	Excitation Current (mA)		
			RED Ø (mA)	YELLOW Ø (mA)	BLUE Ø (mA)

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Winding Reference	Injected Current (A)	Measured Voltage in (V)			Burden Test in (VA)		
		RED Ø (V)	YELLOW Ø (V)	BLUE Ø (V)	RED Ø (VA)	YELLOW Ø (VA)	BLUE Ø (VA)

**Overall Remarks:****Testing Engineer****Commissioning- Engineer****Name:****Name:****Signature:****Signature:**