PROJECT NAME & LOGOS	
CHECK LIST FOR: **Transformer Testing and Commissioning**	**Form No:** **Rev. No : 00** **Page : 1 of 5**
SUBCONTRACTOR [X] CONTRACTOR [ ]	
SECTION OF WORK: Electrical **LOCATION:** **LEVEL:** **WIR No.:**	

Project	
Substation Location	
Contractor	
Consultant	
Manufacturer	
Serial number	
Type	
Cooling	
Vector Group	
Rating	
Ratio	
Date	

1. *Visual inspection:*

S/N	Inspections Items	Inspection Results
1	Check the flexible connectors and Bus bar.	
2	Check all bolts should be completely tight.	
3	Check the clearances of the Terminals and Bus-bars	
4	Transformer is free from Dust and Foreign Materials	
5	Ensure that all units are connected to the Earthing System.	
6	Check the name plate data against sheets.	

2. *Insulation Resistance Measurement Test:*

Reference	Applied Voltage	Insulation Resistance in [GΩ] for 1 Min.
HV to Earth	5 kV for 1 minute	
LV to Earth	1 kV for 1 minute	
HV to LV	1 kV for 1 minute	

3. *Winding Resistance Test:*

Winding Reference	Tap Position	U - V	V - W	U – W
HV Winding	**Principal Tap**			
LV Winding				

4. Ratio Test:

Apply 3 Phase 415 Volts @ HV winding & measure the corresponding voltages with respect to Taps.

Tap No	HV Volts	LV Volts	HV Applied Volts			LV Measured Volts		
			1U-1V	1V-1W	1U-1W	2U-2N	2V-2N	2W-2N
1								
2								
3								
4								
5								

OR

The test is performed with a digital ratio meter which measures the ratio value of the transformer and simultaneously checks the vector group and the polarity.

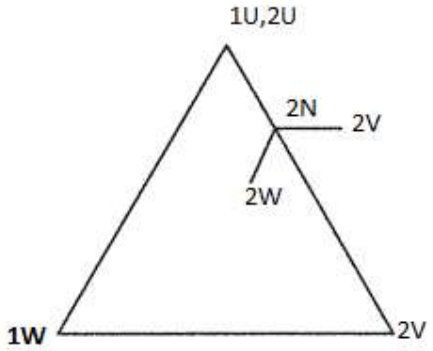
Tap No.	Actual Ratio (HV-Ph.-Ph.)/(LV-Ph.-N)	Calculated Ratio 1U1V/2U2N	Calculated Ratio 1V1W/2V2N	Calculated Ratio 1U1W/2W2N
1				
2				
3				
4				
5				

5. *Core Balance Test at Normal Tap :*

Applied Voltage at	Applied Voltage			Measured Voltage		
	1U-1V	1V-1W	1U-1W	1U-1V	1V-1W	1U-1W
1U1V (1W Removed)		-----	-----	----		
1V1W (1V Removed)	-----		----		----	
1U1W (1U Removed)	----	-----				----

6. *Vector Group & Polarity Test:*

Dyn11 Vector Group & Polarity measurement



For proving the Dyn11 Vector Group:

Connect both 1U & 2U together. Apply 415, 3 Ph. Voltage on HV winding

Measure Voltage between 1U1V= ; 1V1W= ; 1U1W =

& the following:

	2U	***2V***	***2W***
1U			
1V			
1W			

For measured Values, the following conditions are to be satisfied:

1. **1V – 2V = 1V – 2W ----------**
2. **1U – 2V = 1U – 2W ----------**
3. **1W – 2W < 1W – 2V ----------**

7. Temperature Controller NT 935:

Setting for NT 935		Sensor 1	Sensor 2	Sensor 3	Sensor 4	Contact Checked
Alarm						
Trip						
Fan On						
Fan Off						

8. Instrument Used:

S/N	Name of instruments	Make	Serial No	Type model	Calibrated date	Calibration due date
1						
2						
3						
4						
5						

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Remarks:

For S/C QA/QC: **Date:**	**FOR CONTRACTOR QA/QC:** **Date:**	**For Consultant Rep.:** **Date:**
Name: **Sign:**	**Name:** **Sign:**	**Name:** **Sign:**