



CPRI

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NABL ACCREDITED
LABORATORY
Certificate No. T0010

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PRELIMINARY REPORT

Preliminary Report Number : HPL07303 Dated: 26/11/2007

Customers : M/s. Supreme Power Equipment Ltd,
No.55, Sidco Industrial Estate,
Thirumazhisai, Chennai-602107

Manufacturer : M/s. Supreme Power Equipment Ltd,
No.55, Sidco Industrial Estate,
Thirumazhisai, Chennai-602107

Sample : 8 MVA, 33 kV / 11 kV, 3 phase Transformer

Date(s) of Test : 07th November 2007

Description of the Sample tested

Type : Out Door Oil cooled ONAN
Designation : Power Transformer
Serial number : SPEL/2083
CPRI Sample Code No. : HPL07S0394
Number of phases : Three
Vector Group : Dyn11
Type of Cooling : ONAN
Rated MVA : 8
Voltage Ratio (on Principal Tapping) : 33 kV/ 11 kV
Insulation level
H.V. Winding : 170 kV peak / 70 kV rms
L.V. Winding : 75 kV peak / 28 kV rms
Tappings : +5 % to -15 % in steps of 1.25 %
Impedance Volts (Principal Tapping) : 8.35%
Rated Frequency : 50 Hz

Tests conducted

Type of tests : Dynamic ability to withstand short-circuit test.
Tested as per : IS: 2026 (Part 1) - 1977
Deviation if any : Nil
Ratings for which tested : Refer sheet 2 of 2

Test subcontracted with address of the Laboratory : No load loss & load loss measurement, Induced over voltage test and separate source voltage withstand test conducted at M/s. Supreme Power Equipment Ltd, Chennai-602107


Test Engineer

Note: This is only a Preliminary Report. This Report shall not be considered as a final Report of assessment of performance of the Sample tested.



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TEST RESULTS

Dynamic ability to withstand short-circuit test.								
Oscillogram Number	Short-circuit current on secondary side				Phase Voltage (kV) rms			Duration (secs)
	(kA peak)	(kA rms)			U ₁	U ₂	U ₃	
		I ₁	I ₂	I ₃				
HPL07303.S002	11.7	4.55	4.52	4.58	18.0	18.3	17.7	0.5
HPL07303.S003	12.1	4.69	4.63	4.73	18.5	18.7	18.2	0.5
HPL07303.S004	12.1	4.69	4.63	4.73	18.4	18.5	18.3	0.5
Highest tapping maximum peak on 2 W limb								
HPL07303.S006	11.8	4.56	4.54	4.58	16.9	17.1	16.7	0.5
HPL07303.S007	11.9	4.63	4.68	4.70	17.2	17.4	17.0	0.5
HPL07303.S008	11.9	4.64	4.68	4.70	17.1	17.4	16.9	0.5
Principal tapping maximum peak on 2 V limb								
HPL07303.S010	11.0	4.28	4.26	4.28	14.4	14.6	14.2	0.5
HPL07303.S011	10.9	4.25	4.19	4.27	14.2	14.3	14.0	0.5
HPL07303.S012	10.9	4.28	4.20	4.27	14.1	14.3	14.0	0.5
Lowest tapping maximum peak on 2 U limb								

Observation during tests

: No abnormalities.

Condition of the Test	Load Loss at Principal Tap @ 75°C (Watts)	No Load Loss at Principal Tap (Watts)
After Test	34110	4650at 49.8 Hz

After test

Observation during test

: No abnormalities

Change in reactance of the transformer after short-circuit test

: 0.25 %

Routine tests before and after SC tests

: Conducted.

The Transformer was inspected after the short circuit test at manufacturer's works in the presence of CPRI representative. Following are the observations

- Condition of the Conductor, core & clampings : No visible damage, deformation or displacement
- Condition of spacers : Intact
- Condition of Oil : Clear

Test Engineer

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