

SUMMARY OF TYPE TESTS – 12kV, 1250A, 26.3kA VCB PANEL TYPE PSI

All mandatory Type Tests and also Special Type Test conducted on PSI Panel rated 12kV, 1250A, and 26.3kA are detailed below;

1. MANDATORY TYPE TESTS:

The Table below gives the list of **MANDATORY** type tests to be conducted on AC Metal Enclosed switchgear for rated voltages above 1kV and up to and including 52kV as per IEC 62271-200 Clause 6 and IS 3427

Sl. No.	Mandatory Type tests : IEC 62271-200, Clause 6		Type tests conducted on 12kV, 1250A, 26.3kA, VCB panel type PSI of PASCAL	Tests Conducted at	Date of Test
	Type tests specified	Sub Clause			
a	Tests to verify the insulation level of the equipment	6.2	Lighting Impulse Voltage Withstand Test at 75kV peak	NSIC Kolkata	August 2013
b	Tests to verify the insulation level of the equipment	6.2	Dry Power Frequency Withstand Test	NSIC Kolkata	August 2013
c	Tests to prove the temperature rise of any part of the equipment and measurement of the resistance of circuits	6.5 and 6.4	Temperature Rise Test at 1250A	NSIC Kolkata	August 2013
d	Tests to prove the capability of the main and earthing circuits to be subjected to the rated peak and the rated short-time withstand currents	6.6	Short time with stand and peak withstand current test: 26.3 kA for 3 seconds with initial peak of 65.75kA for main circuit and 26.3 kA for 1 second with initial peak of 65.75kA for earth circuit	CPRI Bhopal	Aug 2010
e	Test to prove the making and breaking capacity of the included switching devices	6.101	Verification of Breaking and Making Capacity; complete short circuit duty at 26.3kA T100S, T60, T30, T10, T100a, Single Phase	CPRI Bangalore	April 2010
f	Tests to prove the satisfactory operation of the included switching devices and removable parts	6.101.2	Mechanical Endurance Test (Class M2); 10000 operations	ERDA Baroda	Aug' 12
g	Tests to verify the protection of persons against access to hazardous parts and the protection of the equipment against solid foreign objects	6.7	Test for Degree of Protection IP 5X test	ERDA Baroda	May 2012

2. SPECIAL TYPE TESTS:

The Table below gives list of **SPECIAL** type tests conducted on PSI Panel as per Annexure A of IEC 62271-200 and IS 3427

Sl. No.	Special Type tests IEC 62271-200, Annexure A		Type tests conducted on 12kV, 1250A, 26.3kA, VCB panel type PSI of PASCAL	Tests Conducted at	Date of Test
	Type tests specified	Sub Clause			
a	Internal Arc Test	6.106	Internal arc test conducted on each of the three HV compartment of panel at 26.3 kA.	CPRI Bhopal	August 2010
b	Tests to verify the insulation level of the equipment	6.2	Lighting Impulse Voltage Withstand Test at 90 kV peak	NSIC Kolkata	Nov 2012
c	Cable charging current switching test	6.111.9	Cable charging current switching test	CPRI Bhopal	Oct 2012
d	Capacitor Bank Switching test	6.111.9.2.2	Capacitor Bank Switching test	CPRI Bhopal	April 2013
e	Humidity Test	6.101.4	Humidity Test	ERDA Baroda	July 2013