

**CENTRAL POWER RESEARCH INSTITUTE
(Member of STL)**



CPRI

TEST REPORT

Test Report Number : CPRIBPLSTNC18T0562 Dated : 24.12.2018

Name & Address of the Customer : M/s Sia Sales Corporation,
Plot No. 1207, Gamdi Chosar Road,
Village – Choser, Taluka Daskroi,
Ahmedabad – 382 427

Name and Address of the Manufacturer : M/s Sia Sales Corporation,
Plot No. 1207, Gamdi Chosar Road,
Village – Choser, Taluka Daskroi,
Ahmedabad – 382 427

Particulars of sample tested : 415 V, 4000 A, L.T. Panel
Condition of sample on receipt : New
Type : Power Cum Motor Control Centre
Designation : NIL
Description of test sample : Main Distribution Panel

Serial Number : NIL
Number of samples tested : One

Date(s) of Test(s) : 20.11.2018
CPRI sample code number(s) : STNC18S0339
Detail(s) of sealing(s) of sample(s) : NIL
Particulars of tests conducted : Verification of temperature rise limits
Test(s) in accordance with : As per Cl. 8.2.1 of IS : 8623 (Part-1), 1993/IEC Pub:439-1,1985
Standard/Specification : and as per customer's requirement.
Sampling Plan : NIL
Customer's Requirement : 1) Maximum Temperature limit on busbar & Joints shall be 95 K
declared by the customer as specified in the standard.
2) Incoming and outgoing extension busbar for TR test were of size
(200x10) 3 Nos., 1800mm Long, Aluminium

Deviations, if any : NIL


Name of the witnessing persons


Customer's representatives : Mr. Jha Vikash
Other than customer's representatives : NIL


Test subcontracted with name and address of the laboratory : NONE

Documents constituting this report (in words)

Number of sheets : SIX
Number of oscillograms : NIL
Number of graphs : NIL
Number of photos : NIL
Number of Test circuit Diagrams : NIL
Number of Drawings : TWO


(A.K. Khanra)
Test Engineer




(Sarita Dongre)
Joint Director
Approved by

ULR - TC5181180STCT0562F

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SUMMARY OF TEST

1. Test conducted : Verification of temperature rise limits
2. Rating for which tested : 4000A, 3 Phase, 50 Hz
3. DOCUMENTS CONSTITUTING THIS REPORT :
 - 3.1 Supplementary test report : NIL
 - 3.2 Oscillogram No(s) : NIL
 - 3.3 Drawing of the equipment tested : 1) SSC/STL/TR/02 Rev.00
2) SSC/STL/TR/01 Rev.00
 - 3.4 Test circuit drawing No(s). : NIL
 - 3.5 Photograph No(s). : NIL


(A.K. Khanra)
Test Engineer

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DESCRIPTION OF THE SAMPLE TESTED
(As assigned by the manufacturer)

Sample	:	L.T. Panel
Rated voltage (Volts)	:	415
Rated current (Amps)	:	4000
Frequency (Hz)	:	50
Insulation level (VAC)	:	660
No. of phases	:	3 phase
No. of poles	:	4 poles
Dimensions of the sample	:	-
Contacts terminals material	:	-
Isolating distance (mm)	:	-
Phase to earth distance (mm)	:	-
Creepage distance (mm)	:	-
Rated Short time Current (kA rms/KApk)	:	-


(A.K. Khanra)
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SCHEDULE OF TESTS

Test Conducted : Verification of temperature rise limits.
Condition of the Sample : New
Date of Test : 20.11.2018
Starting Time(Hrs.) : 11.26
Shut down time(Hrs.) : 17.26
Test current (A) : 4000
Size of conductor used : Al. Busbar, Incoming (200x10x3)
Outgoing (200x10x3) Length : 1.8 metres
Busbar Cross Section : Material : Al, Phase: (200x10) mm x 3Nos.Neutral :
(200x10) mm x 2 Nos.
Frequency (Hz) : 50
Phase : 3
Avg. ambient Temperature at shut
down : 31.9°C
Arrangement of thermocouple
locations : As per drawing no. SSC/STL TR/02

Thermocouple		Maximum Temperature Recorded (deg C)	Temperature Rise (°C)
Locations	Numbers		
As per drawing	T1	74.9	43.0
As per drawing	T2	78.7	46.8
As per drawing	T3	73.5	41.6
As per drawing	T4	86.3	54.4
As per drawing	T5	94.9	63.0
As per drawing	T6	85.4	53.5
As per drawing	T7	84.5	52.6
As per drawing	T8	92.7	60.8
As per drawing	T9	83.2	51.3

(Signature)
(A.K. Khanra)
Test Engineer

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SCHEDULE OF TESTS

Thermocouple		Maximum Temperature Recorded (deg C)	Temperature Rise (°C)
Locations	Numbers		
As per drawing	T10	76.1	44.2
As per drawing	T11	86.9	55.0
As per drawing	T12	75.4	43.5
As per drawing	T13	64.5	32.6
As per drawing	T14	69.5	37.6
As per drawing	T15	65.0	33.1
As per drawing	T16	56.1	24.2
As per drawing	T17	54.7	22.8

- Observations : i) The temperature rise obtained was within the limits as specified in the standard & specified by the customer.
ii) High voltage test was conducted at 2.5kVrms for 1 minute to check the effect of temperature rise on adjacent parts of the equipment. Sample withstood the test

CONCLUSION : The test results indicate that the sample tested complies with the requirement of Cl. No. 8.2.1 of IS : 8623 (Part-1), 1993/IEC Pub : 439-1,1985 and customer's requirement.


(A.K. Khanra)
Test Engineer

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