



Certificate No. : T-0071

ELECTRICAL RESEARCH AND DEVELOPMENT ASSOCIATION

(Accredited by the National Accreditation Board for Testing and Calibration Laboratories, Govt. of India)
ERDA Road, Makarpura Industrial Estate, Vadodara-390 010, India.

EPABX : +91 (0265) 2642942, 2642964, 2642377, 3043128 / 29 / 30 / 31 / 33,

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TEST REPORT

SHEET 1 OF 4

NAME & ADDRESS OF CUSTOMER	REPORT No.: LSCS/324	
SAMCON INDUSTRIAL CONTROLS PVT. LTD.	DATE: 11.10.2010	
PLOT NO. 23, SURVEY NO. 165 A/2 & 3, OSWAL IND. ESTATE, NH 3, VILLAGE - ASANGAON, TAL.-SHAHAPUR, DIST. THANE - 421 601	CUSTOMER REF.NO: S.I.C./	DATED: 28.09.2010
	DATE OF SAMPLE RECEIPT:	DATE OF TESTING:
	29.09.2010	01.10.2010
SAMPLE DESCRIPTION	SAMPLE IDENTIFICATION	
STANDARD PANEL (65kA, 4000A) Rated Operational Voltage(Ue): 415 V Rated Operational Current (Ie): 4000 A Rated Frequency : 50 Hz Rated insulation voltage (Ui) : 690 V No. of Phase : TPN Rated short time withstand current & its duration : - 65 kArms for 1 sec. with an initial peak of 143 kA between phases - 39 kArms for 1 sec. with an initial peak of 81.9 kA between adjacent phase & Neutral	ERDA IDENTIFICATION NO.: LSCS-10-174/01 TYPE DESIGNATION: 4000A PCC Sr. No. : SICPL - 001 DRAWING NO.: SICPL-104 REV. 00 SHEET 01 OF 09 TO SHEET 09 OF 09 (TOTAL 9 SHEETS)	
Quantity (Tested): 1 No.		
TEST DETAILS	TEST SPECIFICATIONS	
Verification of the short circuit withstand Strength (Cl. No. 8.2.3)	IS 8623 (Part 1): 1993 / IEC Pub. 439 - 1 (1985)	
ENCLOSURES:		
NUMBER OF OSCILLOGRAM	: TWO	
NUMBER OF PHOTOGRAPH	: ONE	
NUMBER OF TEST CIRCUIT DIAGRAM	: TWO	
NUMBER OF DRAWINGS	: NINE SHEETS	
TEST WITNESSED BY: Mr. ARUN J. FARDE, Mr. NILESH P. DERE		
REMARKS: The sample conforms to the requirements of verification of the short circuit withstand strength as per standard.		
PREPARED BY	CHECKED BY	APPROVED BY

- NOTE: 1. This report relates only to the particular sample received for testing in good condition at ERDA.
2. This report cannot be reproduced in part under any circumstances.
3. Publication of this report requires prior permission in writing from Director, ERDA.
4. Only test asked by customer have been carried out.



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REPORT NO. : LSCS/324

SHEET 2 OF 4

DATE: 11.10.2010

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Verification of the short-circuit withstand strength	Sheet No. 3 OF 4
Test results after Verification of the short-circuit withstand strength	Sheet No. 4 OF 4
Oscillogram No.	337/01 to 337/02
Photograph No.	LSCS-10-174/337
Test circuit diagram No.	OLSC/SWG/47 <u>OLSC/SWG/49</u>
Drawing No.	SICPL-104 REV. 00 SHEET 01 OF 09 TO SHEET 09 OF 09

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SHEET 3 OF 4

DATE: 11.10.2010

VERIFICATION OF THE SHORT-CIRCUIT WITHSTAND STRENGTH

(Cl.No.8.2.3)

The verification of the short circuit withstand strength test was performed on the sample connected to source as per test circuit diagram No.: OLSC/SWG/47 &49. The outgoing terminals were shorted by means of the shorting-links of negligible impedance. The 3-phase Short-circuit current path through Main-busbar is as shown in drawing SICPL-104 REV. 00 SHEET 3 OF 9. The sample was connected to earth through fine wire fuse.

Note : Incoming ACB unit was bypassed to carry out the test.

Condition of the equipment under test: New

Test No.	Oscillogram No.	Short circuit current (kA)			Duration (sec.)	Observation During test	Remarks
		Peak	Rms	Average			
1.	337/01	- 144.472 -	65.143 66.457 65.847	65.816	1.007	No abnormality	Between phase
2.	337/02	83.594	39.532	-	1.005	No abnormality	Between R-Phase & Neutral

Observations after test:

- No abnormality was observed.
- Busbar connections were not loosened.
- No deformation in busbars.
- Busbar supports were intact.
- Fine wire fuse in earth circuit found intact.

[Signature]

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SHEET 4 OF 4

DATE: 11.10.2010

TEST RESULTS AFTER VERIFICATION OF THE SHORT- CIRCUIT WITHSTAND STRENGTH

a) INSULATION RESISTANCE TEST

Sr. No.	Test	Test voltage (V DC)	I.R. Value (MΩ)	
			Required	Measured
1.	Between all live parts and the interconnected exposed conductive parts of the assembly.	500	> 0.5	> 0.5
2.	Between each pole and all the other poles connected for this test to the interconnected exposed conductive parts of the assembly.	500	> 0.5	> 0.5

b) VERIFICATION OF DIELECTRIC PROPERTIES

Sr. No.	Test	Applied voltage (kV)	Duration (Sec.)	Remarks
1.	Between all live parts and the interconnected exposed conductive parts of the assembly.	3	60	Withstood
2.	Between each pole and all the other poles connected for this test to the interconnected exposed conductive parts of the assembly.	3	60	Withstood

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