



Certificate of Registration

This is to certify that

KESELEC ENNGS PVT. LTD.

Has been assessed by Elite Certifications Pvt. Ltd. and has been found to operate as a quality management system conforming to:

Standard : ISO 9001:2008

Address: PLOT NO. 233, SWARN PARK, UDYOG NAGAR, MUNDKA, DELHI-110041 (INDIA)

Scope: MANUFACTURING OF ELECTRICAL CONTROL PANELS AND BUS DUCTS.



Quality Control



Certificate Number: JAS/0612E/1253

Date of Issue: 21.06.2012

Date of Expiry: 20.06.2015

Director

JAS-ANZ



Acc. No.M4420210IU
www.jas-anz.org/register

This Certificate is Issued in accordance with the standard procedure for certification registration and is valid only until the date of expiry or earlier if so advised in writing to the certified organization by Elite Certifications Pvt. Ltd. It is issued subject to the continued availability of access at any time and without notice to the above named organization's premises for the purpose of assessment and surveillance related to the standard specified above and Elite terms & conditions. This certificate is property of Elite Certifications Pvt. Ltd. and whenever required can be recalled.

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ED21 Ver. N3



परीक्षण रिपोर्ट TEST REPORT

केन्द्रीय विद्युत अनुसंधान संस्थान

(विद्युत मंत्रालय, भारत सरकार के अधीन एक स्वायत्त सोसायटी)

CENTRAL POWER RESEARCH INSTITUTE

(An Autonomous Society under the Ministry of Power, Govt. of India)

एस टी एल के सदस्य

Member of STL

स्विचगियर परीक्षण तथा विकास केन्द्र

SWITCHGEAR TESTING & DEVELOPMENT STATION

गोविन्दपुरा, भोपाल - 462 023

GOVINDPURA, BHOPAL - 462 023

फोन : + 91 (0) 755 2586682 फैक्स : +91 (0) 755-2587774



Central Power Research Institute, Bhopal, India

CPRI

100 MVA On-line Testing Station

Test report

Report Number S2980741

Client Keselec Enggs. P. Ltd.,
487/25, Peeragarhi, Rohtak Road,
Delhi 110 087

Manufacturer Keselec Enggs. P. Ltd.,
487/25, Peeragarhi, Rohtak Road,
Delhi 110 087

Test apparatus
Type LT Distribution Board
Designation Power Control Centre
Sample code number CPRI/Str.2
98/535

Number of samples tested One
Serial number -

Date : 15 JAN 1999

Test conducted
Tested as per Verification of the short-circuit withstand strength
Client's requirement/ Clause 8.2.3 of IS:8623 (Part 1) - 1993
Deviations (if any) -
Test date 06 November, 1998

Witnesses
Client's representative Shri Kulwant Singh, Elecl. Engineer
Other witness -

This report contains
Number of sheets Four
Oscillograms Four
Test apparatus drawings Three
Test circuit drawings Two
Photographs One

Signature
16.12.98
Test Engineer

Signature
15/1/99
Laboratory-in-charge
संयुक्त निदेशक
Joint Director
केन्द्रीय विद्युत अनुसंधान संस्थान
Central Power Research Institute
स्विचगियर परीक्षण तथा विकास केन्द्र
Switchgear Testing & Development Station

Notes

- * CPRI issues two kinds of documents; Test Report and Sealed Certificate. Test Report contains records of test values, physical condition of the apparatus before, during and after the test, test oscillograms and photographs. Test Report does not include certification on the performance of the apparatus. The Sealed Certificate is issued only when an apparatus of a particular type and rating has satisfactorily passed all the specified tests in compliance of the conditions stipulated in a published National or International Standard.
- * Test results relate only to the apparatus tested.
- * Reproduction of this report in any format other than this current format, and / or partial reproduction of this report, without the written approval of CPRI, is not permitted.
- * Corrections or erasures anywhere within this report invalidate the report.



Summary of test

Test conducted Verification of the short-circuit withstand strength

Test details	Rating for which tested
Three Phase test on HBB + two sets of VBB in parallel	50 kArms for one sec. with initial peak of 105 kA
Three Phase test on HBB in parallel with two sets of VBB in series	50 kArms for one sec. with initial peak of 105 kA
Single Phase test on neutral and nearest phase of HBB + two sets of VBB in parallel	30 kArms for one sec. with initial peak of 63 kA
Single Phase test on neutral and nearest phase of HBB in parallel with two sets of VBB in series	30 kArms for one sec. with initial peak of 63 kA

Documents constituting this report

Oscillogram numbers S2980741.S02, S2980741.S08, S2980741.S04, S2980741.S06

Drawing numbers KE/119/98 Sheet 1 of 3 Rev. 00, KE/119/98 Sheet 2 of 3, Rev 01
KE/119/98 Sheet 3 of 3 Rev. 00.

Test circuit drawing numbers OLTS/TCD-STC-01 & OLTS/TCD-STC-02

Photograph numbers P-1

S. more
Test Engineer



Ratings assigned by manufacturer

Test apparatus	LT Distribution Board
Type	Power Control Centre
Designation	-
Rated operational voltage	415 Volts
Rated current	5400 Amps
Rated insulation level	-
Rated frequency	50 Hz
Number of phases	Three
Rated short time current	50 kArms for one sec. with initial peak of 105 kA

S. Anore
Test Engineer



Verification of the short-circuit withstand strength

Condition of apparatus before test : New equipment connected to source as per test circuit drawings and as per standard.

Test Circuit Drawing : OLTS/TCD-STC-01

Oscillogram Number	Peak (kA)	RMS in kA			Duration (seconds)	Equivalent current in kA rms for 1 secs
		Ir	Iy	Ib		
Three Phase test on HBB + two sets of VBB in parallel (Peak in R phase)						
S2980741.S02	106.0	50.0	50.2	50.0	1	50.20
Three Phase test on HBB in parallel with two sets of VBB in series (Peak in R phase)						
S2980741.S08	105.0	50.0	50.1	50.0	1	50.10

Test Circuit Drawing : OLTS/TCD-STC-02

Oscillogram Number	Peak (kA)	RMS	Duration (seconds)	Equivalent current in kA rms for 1 secs
		(kA)		
Single Phase test on neutral and nearest phase of HBB + two sets of VBB in parallel				
S2980741.S04	63.0	30.0	1	30.00
Single Phase test on neutral and nearest phase of HBB in parallel with two sets of VBB in series				
S2980741.S06	63.0	30.0	1	30.00

Observations

During test : No abnormality.

After test : No abnormality. Busbars and supports intact. Fine wire fuse intact.

Remarks : After S.C. test, the equipment withstood H.V.test at 2.5 kVrms for one minute as per standard.

Amore
Test Engineer



परीक्षण रिपोर्ट TEST REPORT

केन्द्रीय विद्युत अनुसंधान संस्थान

(विद्युत मंत्रालय, भारत सरकार के अधीन एक स्वायत्त सोसायटी)

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SWITCHGEAR TESTING & DEVELOPMENT STATION

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CENTRAL POWER RESEARCH INSTITUTE
SWITCHGEAR TESTING & DEVELOPMENT STATION
BHOPAL-23
SUPPLEMENTARY TEST LABORATORY

TEST REPORT

9 APR 1999

Test Report No.&Date : 98/STL/TR(2)-91

Client, his reference and address : M/s Keselec Engg.Pvt.Ltd.
487/25, PeeraGarhi, Rohtak road
Delhi-110 087

Manufacturer, his reference&Address : M/s Keselec Engg.Pvt.Ltd.
487/25, PeeraGarhi, Rohtak road
Delhi-110 087

Particulars of apparatus tested : L.T.Distribution Board
Details as per page 3 of 5

Designation : Nil
Type : Power control centre
Identification No. : CPRI/Stn.2
98/535

Sl.No. : Nil
Date (s) of test (s) : 9/11/1998
No.of samples tested : One
Tests conducted : Verification of temperature-rise limits
Particulars of tests conducted : As per page 4 of 5 & 5 of 5


Test in accordance with standard/specification : Cl.8.2.1 of IS:8623(Pt-1)-1993. &
as per Client's requirement.

Client's requirement/ Deviations of any : Test was conducted with 2Nos. FANS 'ON'
provided in the LT Distribution Board
as per Client's requirement.

Name of the witnessing persons :
Client's representative : Mr.Kulwant Singh.Electrical Engineer.

Other than Client's representative : Nil
Documents constituting this report :
(in words)
No.of pages : FIVE
No.of Oscillograms : NIL
No.of drawings : THREE
No.of graphs. : NIL
No.of photos : NIL


TEST ENGINEER


ENGINEERING OFFICER.4
अभियान्तिकी अधिकारी
Engineering Officer

Note:

- a) The test results relate only to the items tested.
- b) Publications or reproduction of this report in any form other than by complete set of the whole report and in the language written, is not permitted without the written consent of CPRI.
- c) Corrections/erasings invalidate the test report.

केन्द्रीय विद्युत अनुसन्धान संस्थान
Central Power Research Institute
स्विचगियर परीक्षण तथा विकास केन्द्र
Switchgear Testing & Development Station
गोविन्दपुरा-भोपाल. 462023
Govindpura-Bhopal, 462023

CENTRAL POWER RESEARCH INSTITUTE
BHOPAL

Test Report No.98/STL/TR(2)-91

Page 2 of 5

SUMMARY OF TEST

1. Test conducted : Verification of temperature rise test.
2. Rating for which tested : 5400 Amps, 50Hz AC

3.DOCUMENTS CONSTITUTING THIS REPORT:

- 3.1 Supplimentary test report : NIL
- 3.2 Oscillogram Nos. : Nil
- 3.3 Drawing of the equipment tested : KE/119/98 Rev.0
Sheet 1 of 3 to 3 of 3
- 3.4 Test circuit drawing No. : Nil
- 3.5 Photograph Nos. : Nil


TEST ENGINEER

CENTRAL POWER RESEARCH INSTITUTE
BHOPAL

Test Report No.98/STL/TR(2)-91

Page 3 of 5

RATING ASSIGNED BY THE MANUFACTURER

Equipment : LT Distribution Board.
Type : Power Control Centre
Rated current : 5400 Amps
Rated voltage : 415 V
Insulation level : 660 V
No.of phases : 3phase +N
Rated short time current : 50kArms for 1sec. 105kAP.
Frequency : 50Hz.


TEST ENGINEER



परीक्षण रिपोर्ट TEST REPORT

केन्द्रीय विद्युत अनुसंधान संस्थान

(विद्युत मंत्रालय, भारत सरकार के अधीन एक स्वायत्त सोसायटी)

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CENTRAL POWER RESEARCH INSTITUTE

SWITCHGEAR TESTING & DEVELOPMENT STATION GOVINDPURA,
BHOPAL - 23

SUPPLEMENTARY TEST LABORATORY

TEST REPORT

11 MAY 1999

Test Report No. & Date : 98/STL/IP-61
Client, his reference and address : M/S KESELEC ENNGS. PVT LTD.,
487/25, Peera Garhi,
Rohtak Road, Delhi-110087
Manufacturer, his reference & address : M/S KESELEC ENNGS. PVT.LTD.,
487/25,Peera Garhi,
Rohtak Road, Delhi-110087
Particulars of apparatus tested : ELECTRICAL PANEL
(Details as per page 3 of 5)
Designation : Nil
Type : CONTROL PANEL BOARD
Identification No. : CPRI/STN.2
98/623
Sl. No. : Nil
Date (s) of test (s) : 22.12.98 & 23.12.98
No. of samples tested : One
Test conducted : Degree of Protection IP-55
Particulars of test conducted : As per page 4 of 5 & 5 of 5.
Test in accordance with/
standard specification : Cl. 7.1.11 of IS 13947(Pt-1)1993
Client's requirement/Deviations if any : Nil.
Name of the Witnessing person
Client's representative : Mr.Kulwant Singh, Elect. Engineer

Other than Client's representative : Nil.

Document constituting this report:

No. of pages : FIVE
No. of Oscillograms : NIL
No. of Drawing(s) : ONE
No. of Graph(s) : NIL
No. of Photo(s) : NIL


TEST ENGINEER

NOTE:

- The test results relate only to the items tested.
- Publication or reproduction of this report in any form other than by complete copy of the report and in the language written is not permitted without the written consent of the Institute.
- Corrections/erasings invalidate the test report.


ENGINEERING OFFICER-4

अभियंत्रिकी अधिकारी ग्रेड-4
Engineering Officer Grade-4
के.पी.ए.ए. संस्थान,
Central Power Research Institute,
स्विचगियर परीक्षण, विकास केन्द्र,
Switchgear Testing & Development Station,
गोविन्दपुरा, भोपाल-462023.
Govindpura, Bhopal-462023.

CENTRAL POWER RESEARCH INSTITUTE
GOVINDPURA, BHOPAL - 23

Test report No. 98/STL/IP-61

Page 2 of 5

SUMMARY OF TEST

1. Test conducted : Degree of Protection IP-55
2. Rating for which tested : Vol of Equipment: As per drawing
No.KE/178/IP55/98 Rev.0(Sheet 1 of 2)

3. DOCUMENTS CONSTITUTING THIS REPORT:

- 3.1 Supplementary test report : NIL
- 3.2 Oscillogram Nos. : NIL
- 3.3 Drawing of the equipment tested : .KE/178/IP55/98 Rev.0(Sheet 1 of 2)
- 3.4 Test circuit drawing No. : NIL
- 3.5 Photograph No. : NIL


TEST ENGINEER

CENTRAL POWER RESEARCH INSTITUTE
GOVINDPURA, BHOPAL - 23

Test report No. 98/STL/IP-61

Page 3 of 5

RATING ASSIGNED BY THE MANUFACTURER

Equipment	:	Electrical Panel
Type	:	Control Panel Board
Rated voltage	:	415V
Volume of the equipment	:	As per drawing No. KE/178/IP-55/98

Rajesh Ranjan
TEST ENGINEER

CENTRAL POWER RESEARCH INSTITUTE
GOVINDPURA, BHOPAL - 23

Test report No. 98/STL/ IP-61

Page 4 of 5

Test conducted : **DEGREE OF PROTECTION IP- 5X**
Date of test : 22/12/98
Test in accordance with : Sub.Cl.C 8.5, Table C- II of IS:13947(Part-1), 1993.
Condition of the equipment before test : New equipment connected for the test.

TEST DETAILS

Test was made inside a closed test chamber in which talcum powder (Unscented) was maintained in suspension by an air current. The equipment under test connected to vacuum pump to maintain inside the enclosure a differential pressure of 200mm of water column. The duration of the test was 8 hours.

OBSERVATIONS AFTER TEST

- 1) No traces of Talcum Powder (Unscented) was observed inside the enclosure of the equipment.
- 2) IR Value measured at 500 VDC between all live parts connected together and earth and found to be more than 2000M Ω
- 3) The equipment Withstood High Voltage Test at 2.5V rms for one minute between all live parts connected together and earth.


TEST ENGINEER

CENTRAL POWER RESEARCH INSTITUTE
GOVINDPURA, BHOPAL - 23

Test report No. 98/STL/ IP-61

Page 5 of 5

Test conducted : **DEGREE OF PROTECTION IP- X5**
Date of test : 23/12/98
Test in accordance with : Sub.Cl.C 8.5 Table II of IS:13947(Part-1), 1993.
Condition of the equipment before test : As such after IP-5X test.

TEST DETAILS

The test was made by washing down the equipment from every direction by means of a hose nozzle of 6.3 mm inside dia which was held 3 meters away from the equipment under test. The water pressure during test was 0.3 bar with a delivery rate of 12.5 litre/min.

The duration of the test was 3 minutes.

OBSERVATION AFTER TEST

- 1) No traces of water were observed inside the enclosure of the equipment.
- 2) I.R. Value measured at 500 V between all live parts connected together and earth and found to be more than 2000 M Ω
- 3) The equipment withstood High Voltage test at 2.5KV rms for one minute between all live parts connected together and earth.


TEST ENGINEER



परीक्षण रिपोर्ट TEST REPORT

केन्द्रीय विद्युत अनुसंधान संस्थान

(विद्युत मंत्रालय, भारत सरकार के अधीन एक स्वायत्त सोसायटी)

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(Member of STL)



CPRI

TEST REPORT

Test Report No. : 2012/STL/1329
Name and Address of the Customer : Keselec Enggs. Pvt. Ltd.,
Plot No. 233, Swaran Park,
Udyog Nagar Mundka,
Delhi - 41
Name and Address of the Manufacturer : Keselec Engg. Pvt. Ltd.,
Plot No. 233, Swaran Park,
Udyog Nagar Mundka,
Delhi - 41
Particulars of Sample(s) Tested : 220V, 3/5A, Electrical Panel
Condition of sample(s) on receipt : New
Type : Indoor / Outdoor
Designation : NIL
Serial Number(s) : NIL
Number of Sample(s) Tested : One
CPRI sample code number(s) : STDSSTL12S0944
Sealing of the sample if any : No
Particulars of test(s) conducted : Degree of protection IP-65
Date(s) of Test(s) : 15/10/2012 & 16/10/2012
Test(s) in accordance with : IS/IEC : 60947 (Part-1), 2004
Standard/specification
Sampling Plan : NIL
Customer's Requirement : NIL
Deviations, if any : NIL

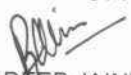
Dated : -9 NOV 2012

Name of the witnessing persons

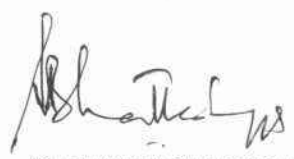
Customer's Representatives : Mr. N.K. Sharma, Director
Other than Customer's Representatives : NIL
Test subcontracted with name and address of the laboratory : NONE

Documents constituting this report (in words)

No. of Sheet(s) : FIVE
No. of Oscillogram(s) : NIL
No. of Graph(s) : NIL
No. of Photograph(s) : NIL
No. of Test Circuit Diagram(s) : NIL
No. of drawing(s) : ONE


(PRADEEP JAIN)
TEST ENGINEER




(S. BHATTACHARYYA)
JOINT DIRECTOR

CENTRAL POWER RESEARCH INSTITUTE
(Member of STL)



CPRI

TEST REPORT

Test Report No:2012/STL/1329

Date : -9 NOV 2012

SUMMARY OF TEST

1. Test conducted : Degree of Protection IP - 65
2. Rating for which tested : 1) Ingress protection against solid particles IP-6X
2) Ingress protection against liquids IP-X5
3. DOCUMENTS CONSTITUTING THIS REPORT :
 - 3.1 Supplementary test report : NIL
 - 3.2 Oscillogram No(s) : NIL
 - 3.3 Drawing of the equipment tested : KE/E/3055 Rev.0 Sheet 1 of 2
 - 3.4 Test circuit drawing No(s) : NIL
 - 3.5 Photograph No(s) : NIL


(PRADHEP JAIN)
TEST ENGINEER

CENTRAL POWER RESEARCH INSTITUTE
(Member of STL)



CPRI

TEST REPORT

Test Report No:2012/STL/1329

Date : - 9 NOV 2012

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

Sample	:	Electrical Panel
Rated Voltage (Volts)	:	220
Rated current (Amps)	:	3/5
Frequency (Hz)	:	50
Insulation level (Volts)	:	660
Number of Phases	:	1
Number of Poles	:	-
Dimension of equipment	:	As per drawing


(PRADEEP JAIN)
TEST ENGINEER

CENTRAL POWER RESEARCH INSTITUTE
(Member of STL)



CPRI

TEST REPORT

Date : -9 NOV 2012

Test Report No:2012/STL/1329

SCHEDULE OF TESTS

- 1) Test conducted : Degree of Protection IP-6X
Date of test : 15/10/2012 & 16/10/2012
Condition of sample before test : New
Test Details : As per Standard

Differential Pressure maintained	Duration of the test
200 mm of water column	8 hours


Observations : No traces of talcum powder observed inside the sample.

- 2) Test conducted : Degree of Protection IP -X5
Date of test : 16/10/2012
Condition of sample before test : As such after IP 6X test.
Test details : As per standard

Size of the nozzle used (mm)	Distance of the nozzle from the sample(mtr)	Water Delivery rate(litre/minute)	Duration of the test (minute)
6.3	3.0	12.5	3.0

Observations : No traces of water observed inside the sample.

CONCLUSION : The test results indicate that the sample tested complies with the requirements of the relevant clauses of IS/IEC : 60947 (Part-1), 2004.


(PRADEEP JAIN)
TEST ENGINEER

CENTRAL POWER RESEARCH INSTITUTE
(Member of STL)



CPRI

TEST REPORT

Test Report No:2012/STL/1329

Date : - 9 NOV 2012

NOTE

- The Test results relate only to the item(s) tested.
- Publication or reproduction of the test report /Certificate in any form other than by complete set of the whole test report /Certificate and in the language written is not permitted without the written consent of CPRI.
- Any Corrections/erasure invalidates the test Report/Certificate.
- NABL has Accredited this laboratory as per ISO 17025-2005 standard vide test certificate no. T-0011 for the tests carried out.
- Any anomaly/discrepancy in the test report /Certificate should be brought to the notice of CPRI within 45 days from the date of issue.
- The verification of the sample drawings by CPRI is limited to dimensional checks only wherever possible.
- CPRI Issues two kinds of documents:


Test Report:

The test report is issued when the sample is tested for specific test required by the customer either in accordance with National/International standards or as per customer's requirements but no certification on the performance of the sample tested. The test report will contain the record of the values of test parameters as obtained during testing, the physical condition of the apparatus during testing, the physical condition of the apparatus during/after the test(s), copy(ies) of Oscillogram(s), record of supplementary test(s) if any conducted but no certification on the performance of the apparatus tested.

Test Certificate:

The test certificate is issued on request and payment of the prescribed charges only when the apparatus of particular type and rating has satisfactorily passed all the specified tests in compliance with condition stipulated in a published National/International Standards.

- All Documents constituting this test report/certificate are stitched together with a Continuous silk thread/silk ribbon, the two ends of which have been brought over the front sheet of this test report/certificate and sealed with a CPRI logo printed paper sticker/embossed.


(PRADHEP JAIN)
TEST ENGINEER