



केन्द्रीय विद्युत अनुसंधान संस्थान

(भारत सरकार की सोसाइटी, विद्युत मंत्रालय)

प्रो.सर.सी.वी. रामन रोड, सदाशिवनगर डाक घर, पो. बा. सं. 8066, बेंगलूरु - 560 080.

CENTRAL POWER RESEARCH INSTITUTE

(A Govt. of India Society under Min. of Power)

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मापयंत्रण प्रभाग / INSULATION DIVISION

ताप प्रचाल परीक्षण प्रयोगशाला / HEAT RUN TEST LABORATORY

सं/ No. HRTL/December/2017/350/108

दिनांक/ Dated: 13.12.2017

मेसर्स / M/s. S.R.Automation Pvt Ltd,
Sonarpur Station Road, P.O.
Narendrapur, Kolkata-700103

ध्यानाकर्षक / Kind Attention: Mr. Biswajit Sarkar (Mobile: +91 9903050297)

विषय/Subject: 415V,160A,50Hz,63KVA,LTCT Cum Metering Box पर तापमान वृद्धि परीक्षण / Temperature rise test on 415V,160A,50Hz,63KVA LTCT Cum Metering Box.

संदर्भ / Ref: ग्राहक अनुरोध फॉर्म, दिनांक: 28.11.2017 / Customer request form, dated: 28.11.2017

महोदय / Dear Sir,

कृपया 415V,160A,50Hz,63KVA LTCT Cum Metering Box पर तापमान वृद्धि परीक्षण के संबंध में उपरोक्त पत्र का संदर्भ ग्रहण करें। परीक्षण पूरा किया गया और परीक्षण रिपोर्ट सं. HRTL/121/November/2017 dated: 02.12.2017 संलग्न पाए।

Kindly refer to above letter regarding Temperature rise test on 415V, 160A, 50Hz,63KVA LTCT Cum Metering Box. The test has been completed and the test report bearing No. HRTL/121/November/2017 dated: 02.12.2017 is enclosed.

परीक्षण रिपोर्ट में हेरफेर रोकने के लिए, 01.10.2007 से प्रभावी परीक्षण रिपोर्ट(मूल प्रति) के प्रथम पृष्ठ पर होलोग्राम शुरू किया है।

In order to prevent tampering of test report, CPRI has introduced hologram on the first page of the test report (Original Copy) with effect from 01.10.2007.

परीक्षण रिपोर्ट में कोई विसंगति पाने पर कृपया परीक्षण रिपोर्ट के प्रेषण की तिथि से 45 दिनों के भीतर ध्यान में लाया जाए।
Any discrepancy in the test report may please be brought to the notice within 45 days from the date of dispatch of the test report.

परीक्षण रिपोर्ट की कृपया पावती भेजे।

Receipt of the Test Report may please be acknowledged.

सादर/ Best Regards,

भवदीय/ Yours Sincerely,

(गंगा. एस)/ (GANGA.S)

अपर निदेशक / ADDITIONAL DIRECTOR

CPRI

TEST REPORT



Central Power Research Institute

(A Govt. of India Society)

**P.B.No. 8066, Sadhashivanagar Post Office,
Prof. Sir C.V. Raman Road,
Bangalore - 560 080 (INDIA)**

CENTRAL POWER RESEARCH INSTITUTE

TEST REPORT



CPRI

Test Report Number : HRTL/121/November/2017 **Dated:** 02.12.2017

Name & Address of the Customer : M/s. SR Automation Pvt Ltd,
Sonarpur Station Road, P.O.
Narendrapur, Kolkata-700103.
Ref.: Customer request form, dated: 28.11.2017

Name & Address of the Manufacturer : M/s. SR Automation Pvt Ltd,
Sonarpur Station Road, P.O.
Narendrapur, Kolkata-700103

Particulars of sample tested : 160A, 415V AC, 63KVA LTCT Cum Metering Box
Condition of the Sample on Receipt : New
Type : Outdoor
Description of test sample : 160A, 415V AC, 63KVA LTCT Cum Metering Box
Serial Number : 001/LTCTMB-63KVA
Number of samples tested : One
Date(s) of Test(s) : 30.11.2017
CPRI sample code no : HRT17RS0077
Particulars of tests conducted : Temperature rise test at 170A Amps

Test in accordance with standard/specification : IS 8623 (Part-1):1993 / IEC Pub 439-1 (1985) (RA-2013)
Sampling plan : Nil
Customers requirement : Nil
Deviations if any : Nil

Name of the witnessing persons
Customers representatives : Mr. Biswajit Sarkar
Other than Customers representatives : Nil
Test subcontracted with address of the laboratory. : NA

Documents constituting this report (in words)

Number of Sheets : Three
Number of oscillograms/s : Nil
Number of graphs : Nil
Number of photos : Nil
Number of Test Circuit Diagrams : Nil
Number of Drawings : Two
1) Drawing.No: SRA/SD/LTCM/63KVA/17-18, SHEET.NO: 1OF2, REV: NIL.
2) Drawing.No: SRA/SD/LTCM/63KVA/17-18, SHEET.NO: 2OF2, REV: NIL.

(RAKESH. K. G)
Test Engineer

(GANGA. S)
Head of Division
Approved By



CENTRAL POWER RESEARCH INSTITUTE

TEST REPORT



CPRI

Test Report No.: HRTL/121/November/2017

Dated: 02.12.2017

TEST RESULTS

Temperature rise test:

Procedure: Temperature rise test was carried out by using the temporary connections mentioned in the table below and passing a current of 170A at frequency of 50Hz. The temperature measurements were recorded at different locations as per the standard at steady state, which are indicated in the drawing enclosed (Drawing No: SRA/SD/LTCM/63KVA/17-18, SHEET NO: 1 OF 2, REV: NIL). **The average ambient Temperature during the test was 24°C.**

Temporary Connections	Material	Quantity (Numbers)	Length (mm)	Cross-Section mm ²	Remarks
Incoming side	PVC Insulated Copper Cables	One	2000	70	Each phase
Outgoing Side	PVC Insulated Copper Cables	One	2000	70	Each phase

Note: The Outgoing Cables are Shorted at the end by using Suitable Links

Location of Thermocouples as per Standard	Temperature Rise (K)	
	Specified Values as per standard	Recorded values
Incoming Terminal R-Phase (T1)	70	22.0
Incoming Terminal Y-Phase (T2)	70	24.2
Incoming Terminal B-Phase (T3)	70	33.4
Incoming Side Busbar R-Phase (T4)	--	22.3
Incoming Side Busbar Y-Phase (T5)	--	27.5
Incoming Side Busbar B-Phase (T6)	--	43.3
Outgoing Terminal R-Phase (T7)	70	21.9
Outgoing Terminal Y-Phase (T8)	70	24.4
Outgoing Terminal B-Phase (T9)	70	49.1
Enclosure (T10)	40	5.73

Results: The Sample tested complies with the Clause 7.3 of standard IS 8623 (Part 1):1993/ IEC Pub 439 Part 1:1985 (RA-2013)

(Rakesh. K. G)
Test Engineer

CENTRAL POWER RESEARCH INSTITUTE

TEST REPORT




CPRI

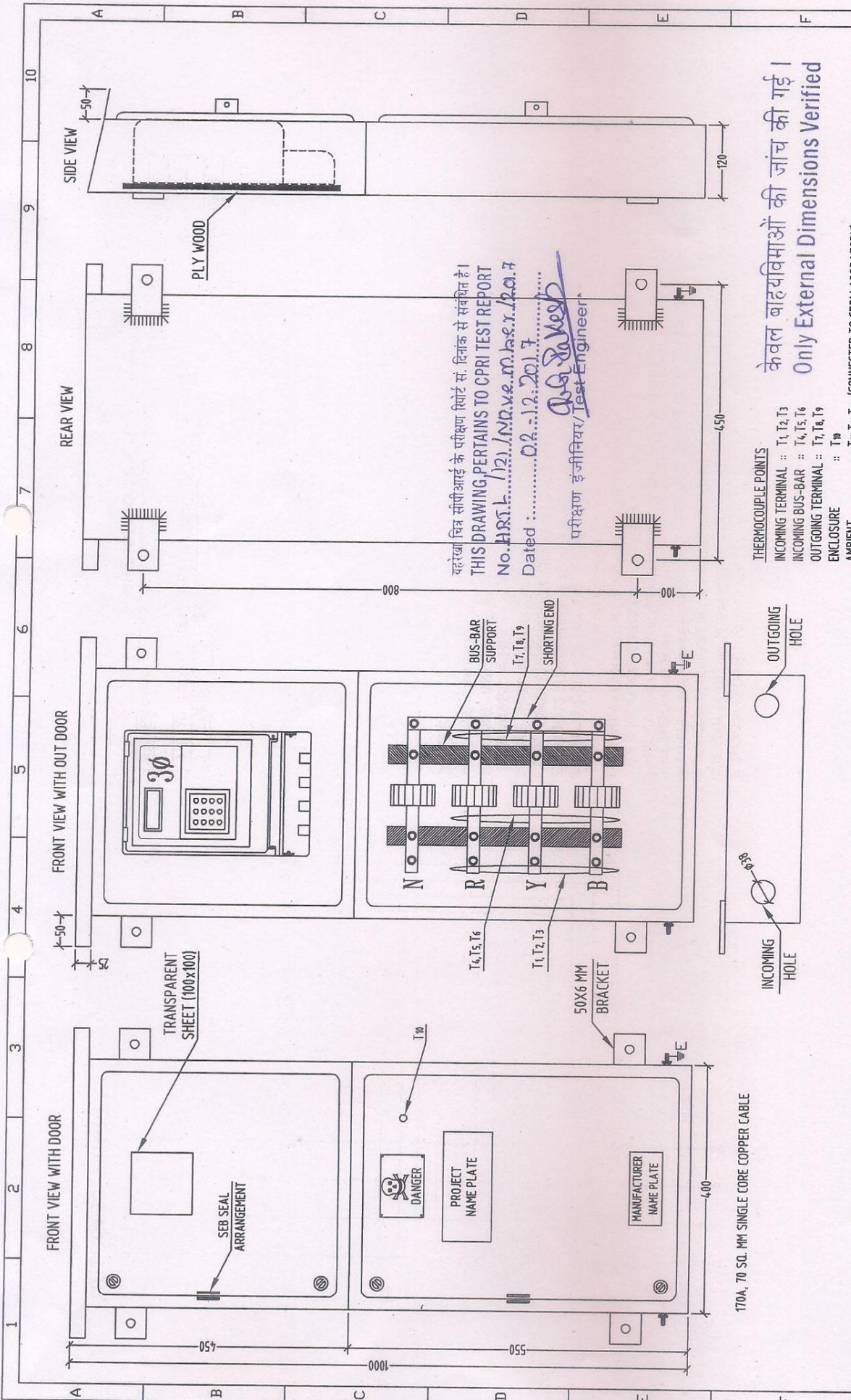
Test Report No.: HRTL/121/November/2017

Dated: 02.12.2017

NOTE

- a) The Test results relate only to the item(s) tested.
- b) 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.
- c) Any Corrections/erasure invalidates the test Report/Certificate
- d) NABL has Accredited this laboratory as per ISO 17025-2005 standard, vide certificate no.TC-5452 for the tests carried out.
- e) Any anomaly/discrepancy in the test Report /Certificate should be brought to the notice of CPRI within 45 days from the date of issue.


(Rakesh. K. G)
Test Engineer



यह दस्तावेज चित्र संपीर्ण आई के परीक्षण रिपोर्ट सं. दिनांक से संबंधित है।
 THIS DRAWING PERTAINS TO CPRI TEST REPORT
 No. HRSR-1/21/ND.v.e.m.h.s.r./20.7
 Dated : 02.12.2017

परीक्षण इंजीनियर/ Test Engineer
Abhijit Mishra

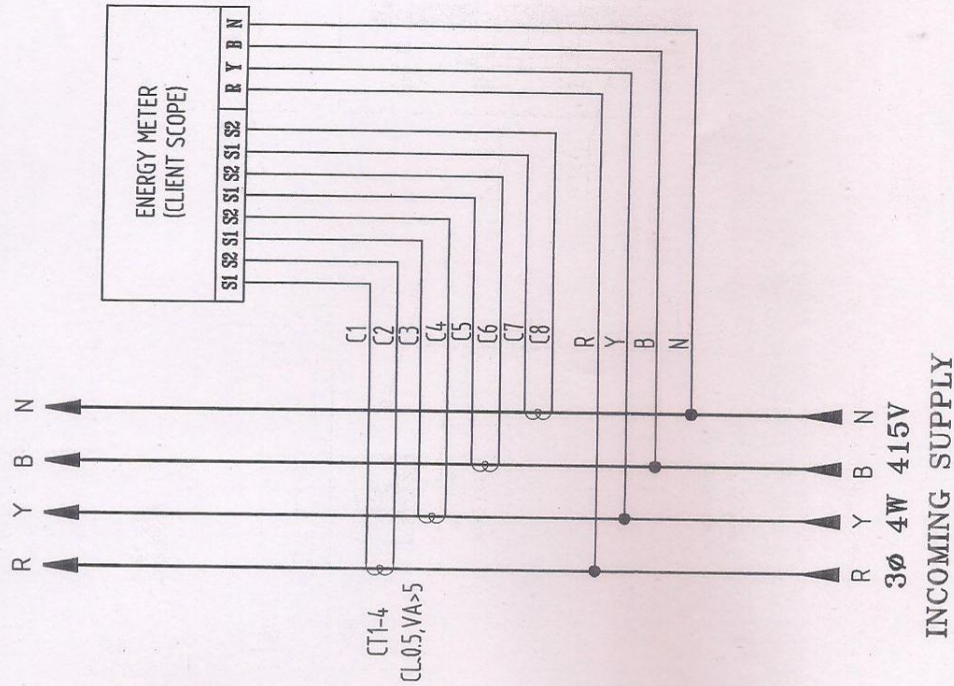
170A, 70 SQ. MM SINGLE CORE COPPER CABLE

INCOMING THERMOCOUPLE POINTS
 INCOMING TERMINAL :: T1, T2, T3
 INCOMING BUS-BAR :: T4, T5, T6
 OUTGOING TERMINAL :: T7, T8, T9
 ENCLOSURE :: T10
 AMBIENT :: T11, T12, T13 (CONNECTED TO CPRI LABORATORY)

केवल बाह्यमापों की जांच की गई।
 Only External Dimensions Verified

THIS DRAWING IS THE PROPERTY OF S. R. AUTOMATION (P) LTD & MUST NOT BE COPIED WITH OUT WRITTEN PERMISSION.		SL. NO-001/LTCTMB-63KVA	
MANUFACTURER :	NAME	DATE	REV. BY
S.R.Automation Pvt. Ltd.	SUBRATA	03.08.2017	
Sonepur Station Road (Khand gazil, P.O. -Narendrapur, Kolkata - 700003, Ph: 03-2471 2651, Fax: 2471 3831	DESIGN		DATE
DRG. No.: SRA/SD/LTCM/63KVA/11-1B	DRAWN	S.RA DEEP	03.08.2017
	CHKD	NGDEBNATH	03.08.2017
	APPROVED		
CATEGORY OF DRG. :: APPROVAL / INFORMATION / REFERENCE / RECORD / CONSTRUCTION.		170A HEAT RUN / TEMPERATURE RAISE TEST	
UTILITY :		FOR 63 KVA LT CT CUM METERING BOX	
PROJECT :		P.O. NO. :	
CONTRACTOR :		SCALE : NTS	
REF. DRG. NO.		7	
SHEET		1 OF 2	

OUTGOING SUPPLY



BILL OF MATERIALS (100kVA)

SL. DESCRIPTION	RATING	QTY	MAKE
1 415V, 3 PHASE, 4 WIRE CT OPERATED ENERGY METER (CLIENT SCOPE)	---	1	---
2 RESIN CAST CT, CL. 0.5, VA-5	200/5A	4	SECURE/ASHMOR

यह योजना बिना सीपीआई के परीक्षण रिपोर्ट सं. दिनांक से संबंधित है।
 THIS DRAWING PERTAINS TO CPRI TEST REPORT
 No. HRT.L/12.1/..November.2017
 Dated :.....02.12.2017

R. S. D. Kesh
 परीक्षण इंजीनियर/ Test Engineer

NOTES

- ENCLOSURE - 12MM THICK CRCA.
- ENCLOSURE - DUST TIGHT, VERMIN PROOF WITH RUBBER GASKETED DOORS/COVERS : IP-33.
- PAINTING - POWDER COATING LIGHT ADMIRALTY GREY (IS-5 : 1993 COLOUR NO. 697) WITH 40 MICRON THICKNESS.
- DOOR - CONCEALED HINGE WITH LOCK ARRANGEMENT AND RUBBER GASKETED.
- CT WIRING 2.5 SQ.MM COPPER CABLE & CONTROL WIRING 1.5 SQ.MM
- MAIN AL. BUS-BAR SIZE : PHASE - 25X10mm. NEUTRAL - 25X10mm.
- HEAT SHRINKABLE SLEEVES WILL BE PROVIDED FOR BUSBAR WITH COLOUR MARKING FOR IDENTIFICATIONS OF PHASES R,Y,B. WITH FRP INSULATOR FOR SUPPORT.
- NAME PLATE WILL BE WHITE LETTERING ENGRAVED ON BLACK ANODISED PLATE
- ALL DIMENSION ARE IN MM.
- ALL CABLE ENTRY FROM BOTTOM.
- TWO NOS M-8 EARTH BOLT WILL BE PROVIDED BOTH SIDE OF THE DB FOR EARTH.
- INTERNAL LAYOUT MAY BE CHANGE DURING MANUFACTURING.
- DIMENSION TOLERANCE SHALL BE ±3MM.

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MANUFACTURER :		CATEGORY OF DRG. : APPROVAL / INFORMATION / REFERENCE / RECORD / CONSTRUCTION	
DESIGN	NAME	DATE	REV. BY
DRAWN	SUBRATA	03.08.2017	
CHKD	S.R.A/DEEP	03.08.2017	
APPROVED	NGDEBNATH	03.08.2017	
S.R. Automation Pvt. Ltd.		170A HEAT RUN / TEMPERATURE RAISE TEST	
Sonapur Station Road (Kamal gasil), P.O.: Harandrapur, Kollata - 700063. Ph: 033-2477 2657, Fax: 2477 3631		FOR 63 KVA LT CT CUM METERING BOX	
DRG. No.: SRA/SD/L/CTMB/63KVA/11-18		P.O. NO.:	
		SCALE: NTS	
		CONTRACTOR :	
		REF. DRG NO.	
1	2	3	4
5	6	7	8
9	10	SHEET 2 OF 2	