

CPRI

TEST REPORT



**Central Power Research Institute
(A Govt. of India Society)
P.B. No.9, Uppal P.O.,
Hyderabad - Warangal Highway,
HYDERABAD - 500 039 (INDIA)**



CPRI

**UHV RESEARCH LABORATORY
CENTRAL POWER RESEARCH INSTITUTE**
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HYDERABAD - 500 039.

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Certificate No. : T-0098

Sheet 01 of 03

Dated: 20.04.2009

TEST REPORT

UHV / T / 017

Test report number

Name & address of the customer

M/s. Crompton Greaves Limited,
S6 Division, D-2, MIDC Waluj,
Aurangabad - 431 136

Name & address of the manufacturer

M/s. Crompton Greaves Limited,
S6 Division, D-2, MIDC Waluj,
Aurangabad - 431 136

Particulars of sample tested

Condition of sample on receipt

Type

Description

Serial number

Number of samples tested

Date(s) of test(s)

CPRI sample code number

New

IOSK. 145 / 275 / 650

145 kV Current Transformer

81541

One

08.04.2009

UHV09S0151

Particulars of test conducted

Test method

Standard/specification

Sampling plan

Customers requirement

Deviations if any

Radio interference voltage (R.I.V) test

IEC 60044-1 / 2003

Not applicable

Nil

Nil

Name of the witnessing persons

Customer's representatives

Other than customer's representatives

Mr. Sunil Nannaware

Nil

Test subcontracted with address of the laboratory

Nil

Documents constituting this report (in words)

Number of sheets

Number of oscillograms

Number of graphs

Number of photos

Number of test circuit diagrams

Number of drawings

Three

Nil

Nil

Nil

One in sheet 03 of 03

Three

(K. A. ARAVIND)
Test Engineer



AUTHORIZED SIGNATORIES

(B. GUNASEKARAN)
Additional Director



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MOUNTING ARRANGEMENTS & TEST CONNECTIONS DURING TEST:

Mounting arrangements: CT was placed at outdoor.
Reference Drawing Nos: 1) SX2602 CT1 GA
2) SX2602 CT1 RS Rev R1
3) SX2602 CT1 SB

Test connections: HV connected to primary terminal P1 of the current transformer.
All secondary terminals were shorted together and earthed along with CT base.

AMBIENT CONDITIONS:

Temperature in Degree Celsius		Atmospheric pressure in mm of Hg
Dry bulb	Wet bulb	
28	24	718

TEST PROCEDURE: As per standard

RESULTS & OBSERVATIONS:

Radio Interference Voltage (R.I.V) test

Applicable additional standard CISPR 18-2/1986

Detector: Quasi Peak Measuring frequency: 1MHz

Ambient RIV level across 300 Ω : 98.9 μ V

The sample was pre-stressed at 125.6 kV (RMS) for 30 s and reduced to measuring voltage within 10 s

Measuring voltage	Measured RIV level across 300 Ω impedance (after application of measuring voltage for 30 s)
92.1 kV (RMS)	229.1 μ V

(K. A. ARAVIND)
Test Engineer



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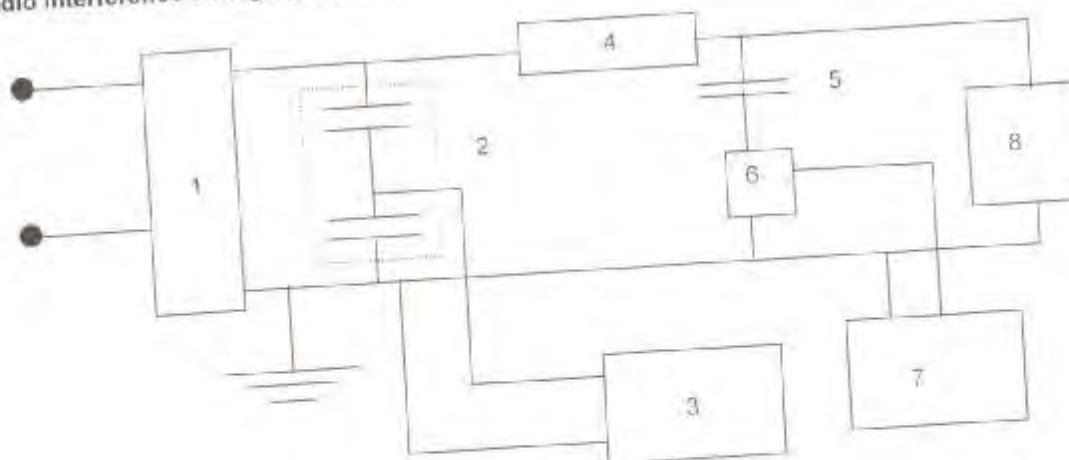
Sheet 03 of 03

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TEST CIRCUIT DIAGRAM

Radio interference voltage (R.I.V) test



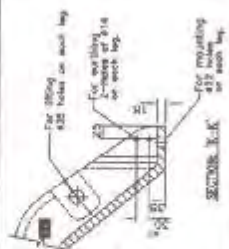
LEGEND:

- | | |
|-----------------------|----------------------|
| 1: AC Transformer | 2: Voltage Divider |
| 3: RMS Voltmeter | 4: RF Rejection Coil |
| 5: Coupling Capacitor | 6: Impedance Box |
| 7: EMI Test receiver | 8: Test Sample |

NOTE

- The test results relates only to the items tested
- Publication 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 approval of CPRI.
- Corrections/ erasing invalidates the test report.
- Any anomalies/ discrepancies in the test report should be brought to our notice within 45 days from the date of issue.

(K. A. ARAVIND)
Test Engineer



WILLIAMS

- MAKE OF ALL ITEMS TO MEET'S QA APPROVAL
- DEGREE OF PROTECTION FOR SECONDARY TERMINAL BOX- IP 55
- INSULATION OF OIL SHALL BE BW GRADE AS PER IS:335-1993; IEC:248-1982
- HARDWARE-MID BELLOW ELECTRICAL WAREHOUSE 412 & ABOVE STAINLESS STEEL
- MIN LEVEL ALL 92 IN LESS THAN 500 MICRO VOLTS.
- PROTECTED AREA OF PRODUCT < 1.0 SQUARE METER.
- CANTILEVER LOAD OF INSULATION= 700 Kg±
- PRIMARY NO OF TURN- 2
- MIN. CROSS SECTION= 1062 mm ALUMINIUM
- FINISH : EPOXY PAINT SHADE = 093 OF IS:15-1904.

NO.	QTY.	DESCRIPTION
1	2	ALUMINUM PRIMARY TERMINAL
2	1	PORCELAIN INSULATOR (GROWN COLOUR)
3	1	RATING & SCHEMATIC DIAGRAM
4	1	SECONDARY TERMINAL BOX
5	1	BELLOW LEVEL INDICATOR
6	1	ALUMINUM BASE
7	1	PRIMARY WINDING
8	1	SECONDARY WINDING
9	1	OIL SAMPLING PORT

IF IN DOUBT ASK

NOTE: PLEASE REFER INSTRUCTION MANUAL FOR HANDLING & TRANSPORTATION OF CT

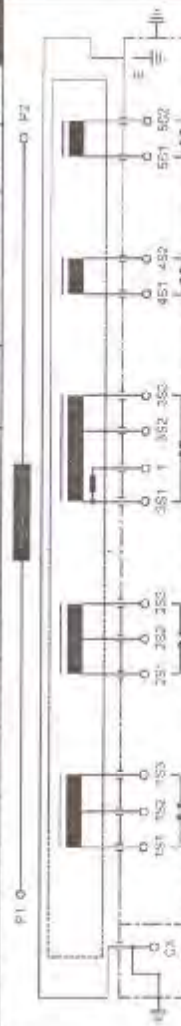
REV	REVISION	REV DATE	REV BY	REV APPR	REV DATE	REV BY	REV APPR
R6							
R5		*					
R4							
R3							
R2							
R1							
R0							

	CONSULTANT : POWER ENGINEERING CONSULTANTS LTD. BOMBAY.					LDA NO. : G-46705-SPT15A-3/LDA-1/2301 & LDA-4/2302, dated-15.02.87	MANUFACTURER : CROMPTON GREAVES LTD., 86 DWN., ALURANGABAD.	TITLE : GENERAL ARRANGEMENT DRAWING FOR 145 KV CURRENT TRANSFORMER, 800 Amp (120% E.L.)	APPRO.				DATE : 22.06.2007	SCALE : NTS.	REV. (1)
OWNER : Bihar State Electricity Board.	PROJECT : SUBSTATION "PACKAGE 1" FOR TRANSMISSION SYSTEM ASSOCIATED WITH BIHAR SUB-TRANSMISSION SYSTEM - PHASE-II PART-I	DESIGN	DRAWN	STU	USS				DRG. NO. : JCAD 9820						
JIYOTI STRUCTURES LTD., VALEENA CHAMBERS, STRENGTH FLR-NEW LINK ROAD, 22-MARKET, MUMBAI (M) MUMBAI - 400 263.										SHEET NO. : 1 OF 1					
															

± 1	± 0.2
270	256


Crompton Greaves

MADE IN ITALY

[illegible][illegible]

	TOTAL WEIGHT = 450 ¹⁰⁰⁰ KG	CLASS OF INSULATION: II	CAUTION: SHORT ALL SEC. TERMINALS WHEN NOT IN USE OR BEFORE DISCONNECTING BURDEN CONNECT TO EARTH WHEN IN OPERATION
	DL VOLUME = 120 ¹⁰⁰⁰ Litre	INSULATION ON AS PER ESD 006	

§4.5 Hilbert 4-Nets

MATERIAL: STAINLESS STEEL
Material Thickness— 0.5mm TH.

CT SR.No's: 81541 TO 81543

[illegible]

DETAIL VIEW FROM "K"

TOP VIEW (SECTION A-A)

ELEVATION

SIDE VIEW

SL.NO.	QTY.	ITEM	MATERIAL	RM. SIZE / SPECIFICATION
1	1	SECONDARY BOX ASSEMBLY	M/S	DAGNO NO/2129
2	2	GLAND PLATE	M/S	16mm Thick
3	1	GASKET	NEOPRENE	
4	2	PASKET	NEOPRENE	
5	3	WING NUT	S-STEEL	STD-M8
6	2	DINRAIL	STEEL	STD
7	1E	SECONDARY TERMINAL BLOCK	MELAMINE	MAKE/CONNECTWELL/ELEMEX TYPE-LOUTS, -2W, 30MM
8	5	RAU CLAMP	STEEL	MAKE/CONNECTWELL/ELEMEX
9	3	END PLATS	MELAMINE	MAKE/CONNECTWELL/ELEMEX
10	1	RATING & SCHEMATIC DIAGRAM	STAINLESS STEEL	MAKE/CONNECTWELL/ELEMEX
11	1	BOX IN BOX ARRANGEMENT	M/S	
12	5	SPARK GAP	BRASS PLATED	
13	2	EARTH TERMINAL	M8-BRASS	
14	1	HEATER	---	
15	1	TECHNICAL/TEMPERATURE SENSOR (THERMISTAT)	(HEATER CIRCUIT)	LOW 125W, HIGHER 50 WATT RANGE 100-1500 RESISTANCE

TEST ENGINEER
Central Power Research Institute
HYDERABAD

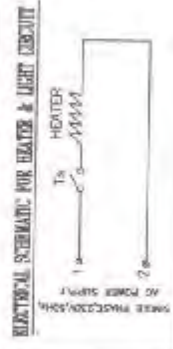
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CT SR.NOS. : 81541 TO 81543
GCDF NO : 970045271

एतन्निजं तु साधारणम् नैव भवति । तस्मात् तद्वै-

NOTES +

- 1) SECONDARY BOX ASSEMBLY TO CONFORM PER AS PER IS 3047-1983.
- 2) GUARANTEE FOR CAPACITANCE & TAN DELTA MEASUREMENT ONLY SHOULD BE KEPT EXACTLY WHEN NOT IN USE.
- 3) FINISH - SHOT BLASTED + HOT DIP GALVANIZED + POLYMERIZED
BOX INSIDE - EPOXY PAINT SHAFT-FLANGES WHITE.
BOX OUTSIDE - POLYURETHANE PAINT SHAFT + RAL 7030 COLOURED GREY.



IF IN DOUBT ASK