

**CPRI**

# **TEST REPORT**

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## **Central Power Research Institute**

**(A Govt. of India Society)**

**P.B.No. 8066, Sadashivanagar Post Office,**

**Sir C.V. Raman Road,**

**Bangalore - 560 080 (INDIA)**



**CPRI**

**HEAT RUN TEST LABORATORY  
DIAGNOSTIC, CABLES & CAPACITORS DIVISION  
CENTRAL POWER RESEARCH INSTITUTE**

P.B.NO.8066, SADASHIVANAGAR SUB P.O  
PROF.SIR.C.V.RAMAN ROAD, BANGALORE - 560 080, INDIA  
Phone: + 91 (0) 80-2360 4435 Fax: 080 - 2360 4435



NABL Accredited  
Laboratory  
Cert.No.T- 0010

Sheet 1 of 4

**TEST REPORT**

**Test Report Number** : DCCD -11469 **Dated:** 21.05.2010

**Name & Address of the Customer** : M/s. Krishnaa Energy Pvt. Ltd.,  
DP 69, Sidco Industrial Estate,  
Thirimudivakkam, Chennai-600 044  
Ref: Your Mail Dated:08.03.2010 & Letter Dated:  
28.04.2010.

**Name & Address of the Manufacturer** : M/s. Krishnaa Energy Pvt. Ltd.,  
DP 69, Sidco Industrial Estate,  
Thirimudivakkam, Chennai-600 044

**Particulars of sample tested** : 11kV, 1250A Double Break Isolator  
**Condition of the Sample on Receipt** : After SC test  
**Type** : Outdoor  
**Designation** : 11kV, 1250A Double Break Isolator  
**Serial Number** : Nil  
**Number of samples tested** : One  
**Date(s) of Test(s)** : 13.05.2010

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**CPRI sample code no** : SC10S0791

**Particulars of tests conducted** : Temperature Rise Test at 1250A & Milli Volt Drop Test.  
**Test in accordance with standard/specification** : As per IS: 9921 (Part I) -1982 / RA - 2007  
IS: 9921 (Part IV) -1985 / RA - 2007

**Sampling plan** : NA  
**Customers requirement** : Temperature Rise Test at 1250A & Milli Volt Drop Test.  
**Deviations if any** : Nil

**Name of the witnessing persons**

**Customers representatives** : Mr.A.Sekar  
**Other than Customers representatives** : Nil  
**Test subcontracted with address of the laboratory** : NA

**Documents constituting this report (in words)**

**Number of Sheets** : Four  
**Number of oscillograms** : Nil  
**Number of graphs** : Nil  
**Number of photos** : Nil  
**Number of Test Circuit Diagrams** : Nil  
**Number of Drawings** : One: 1) KEISO-11-001A

(MANJUNATH.B.S)  
Test Engineer



(A.SUDHINDRA)  
Additional Director

AUTHORISED SIGNATORIES



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Sheet 2 of 4

**TEST REPORT**

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**TEST RESULTS**

**1 Resistance Measurement of the main Circuit (Milli volt drop test) -**

Before temperature rise test as per Clause 3.2.5 of IS: 9921 - (Part 4) -1985 / RA-2007.

Magnitude of current: 100 Amperes d.c.

Test method: By measuring the d.c voltage drop across the terminals of the Isolator.

Test Condition: The Isolator in closed position and at ambient temperature.

Measured values:

**Ambient temperature : 32.2°C**

Pole	Milli volt drop (mV)
P1	22.30
P2	25.35
P3	24.80

**2. Temperature Rise Test: As per Clause 3.2 of IS 9921 – IV - 1985 / RA - 2007**

Temporary connections:

Connections	Material	Quantity (Numbers)	Length (mm)	Section mm <sup>2</sup>	Remarks
Incoming side	Copper flexible braids	Two	2000	400	Each Pole
	Copper Busbar	Two	2000	100X8	Each Pole
Outgoing side	Copper Busbar	Two	2000	100X8	Each Pole
	Copper Busbar (Shorting Busbar)	Two	400	100X8	Across P1,P2,P3 Poles

**Magnitude of current passed:**

P1 Pole: 1250 Amps	P2 Pole: 1250 Amps	P3 Pole: 1250 Amps
Frequency 49.3 Hz to 49.8Hz		

*Manjunath M*  
(MANJUNATH.B.S)  
Test Engineer



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Sheet 3 of 4

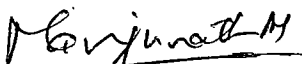
**TEST REPORT**

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Average ambient temperature: 36.4°C  
Temperature rise of the various parts at steady state:

Points of measurement - Nature of the part, of the material, of the dielectric	Specified requirements as per Table - 4 of IS - 9921 - Part II - 1982, RA -2007. Temperature Rise at an ambient air Temperature not exceeding 40°C (°C)	Temperature Rise (°C)			Remarks		
		P1 pole	P2 pole	P3 pole	P1 pole	P2 pole	P3 pole
1. Isolator Contacts (Silver-Plated in air)							
i. Fixed Contacts Incoming side	65	39.7	31.5	45.0	Within limit	Within limit	Within limit
Outgoing side	65	46.1	33.1	40.6	Within limit	Within limit	Within limit
ii. Moving Contacts Incoming side	65	40.5	40.6	45.5	Within limit	Within limit	Within limit
Outgoing side	65	50.6	40.4	50.5	Within limit	Within limit	Within limit
2. Terminals of disconnectors to be connected to external conductors by screws or bolts (Silver-Plated in air)							
i Incoming Terminal	65	43.1	39.9	55.1	Within limit	Within limit	Within limit
ii Outgoing Terminal	65	52.9	39.6	54.6	Within limit	Within limit	Within limit

  
(MANJUNATH.B.S)  
Test Engineer



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Sheet 4 of 4

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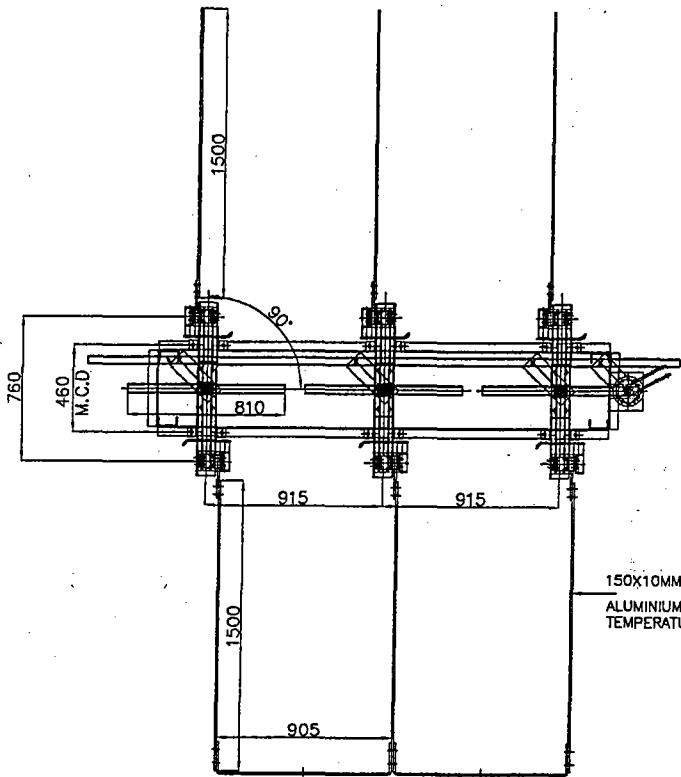
**NOTE**

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- c) Any correction/erasure invalidates this test report.
- d) Any anomaly/discrepancy in this test report should be brought to our notice within 45 days from the date of issue.

*Manjunath H*

(MANJUNATH.B.S)

Test Engineer



150X10MMTHKx1500LG (BOTH SIDES)  
ALUMINIUM BUS BAR USED FOR C.P.R.I  
TEMPERATURE RISE TEST ONLY

**THIS DRAWING PERTAINS  
TO CPRI TEST REPORT**

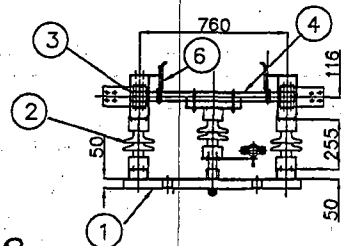
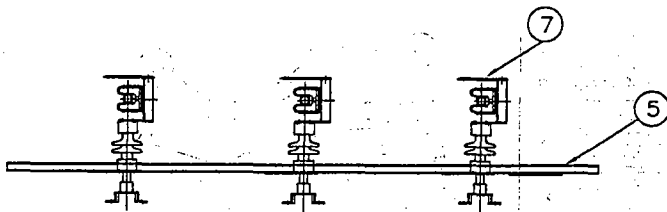
No. DCCD: 11469

Dated: 21-05-2010

Test Engineer *Manjunath*

NOTE:

1. ALL FERROUS PARTS ARE HOT DIP GALVANISED
2. CONTACT ENDS ARE SILVER PLATED
3. TOLERANCE OF DIMENSION  $\pm 5\%$
4. SHORT TIME CURRENT RATING 25 KA/3SEC
5. APPLICABLE STANDARD IS 9921 PART-1 TO 5
6. ROTATING STOOL BASE HAVING 1 No. THRUST BEARING & WITH GREASE NIPPLE



SL.NO	DESCRIPTION
7	FIXED CONTACT ARCING HORN $\phi 10 \times 2$ Nos
6	MOVING CONTACT ARCING HORN $\phi 10 \times 2$ Nos
5	TANDEM PIPE FOR MAIN NB32 G.I. PIPE
4	ASSY.OF MOVING BLADE H.D.H.C OD50xID40
3	ASSY.OF MAIN FIXED CONTACT H.D.H.C 32x5mm THK 4Nos/POLE
2	1KV SOLID CORE POST INSULATOR
1	ASSY.OF BASE

NOTE:- TERMINAL PAD 100x8. COPPER: SILVER PLATED.  
*Adecar*

		ALL DIMENSION ARE IN mm		DESCRIPTION: G.A OF 11KV/1250A DOUBLE BREAK ISOLATOR				SCALE : NTS	
		MFG BY:		Krishna KRISHNAA ENERGY PRIVATE LIMITED.,					
REV.	DATE	DESCRIPTION	DRAWN	CHD.	APPD.	SIGN	DATE	SHT.No.	DRAWING No.
0			JMR	PR	SN		12.2.10		
CUSTOMER : M/s.								KEISO-11-001A	
P.O.REF :				CONSULTANT :				JOB REF :	

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