

**CPRI**

**TEST REPORT**



**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

<b>Test Report Number</b>	: DCCD -11426	<b>Dated:</b> 30.04.2010
<b>Name &amp; Address of the Customer</b>	: M/s. Krishnaa Energy Pvt. Ltd., DP 69, Sidco Industrial Estate, Thirimudivakkam, Chennai-600 044 Ref:Letter Dated:28.04.2010	
<b>Name &amp; Address of the Manufacturer</b>	: M/s. Krishnaa Energy Pvt. Ltd., DP 69, Sidco Industrial Estate, Thirimudivakkam, Chennai-600 044	
<b>Particulars of sample tested</b>	: 11kV, 630A MV switchgear panel	
<b>Condition of the Sample on Receipt</b>	: After SC test	
Type	: SAMPLE (Indoor panel)	
Designation	: (Indoor panel)	
Serial Number	: Nil	
Number of samples tested	: One	
Date(s) of Test(s)	: 28.04.2010	
CPRI sample code no	: SC10S0816	
<b>Particulars of tests conducted</b>	: Temperature Rise Test at 630A & Milli Volt Drop Test before and after temperature rise test	
<b>Test in accordance with standard/specification</b>	: As per IEC: 62271-200-2003/ IEC: 62271-1-2007	
Sampling plan	: NA	
Customers requirement	: Temperature Rise Test at 630A & Milli Volt Drop Test before and after temperature rise test	
Deviations if any	: Nil	
<b>Name of the witnessing persons</b>	: Mr. Bhanu Srilla-Enercon Engineering & Ms Roshini.G-General Electric	
Customers representatives	: Mr. P. Ramachandran	
Other than Customers representatives	: Mr. P. Ramachandran	
Test subcontracted with address of the laboratory	: NA	
<b>Documents constituting this report (in words)</b>		
Number of Sheets	: Four	
Number of oscillograms	: Nil	
Number of graphs	: Nil	
Number of photos	: Two	
Number of Test Circuit Diagrams	: Nil	
Number of Drawings	: One: 1) KEVCB-11-201A	

(G.P.VITTAL)  
Test Engineer



(A.SUDHINDRA)  
Additional Director

AUTHORISED SIGNATORIES



**ADDITIONAL TEST REPORT**  
**HEAT RUN TEST LABORATORY**  
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**TEST REPORT**

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**TEST RESULTS**

**1. Milli volt drop test (Resistance measurement of the main circuit):**

As per Cl. 6.4 of IEC: 62271-200-2003 / IEC: 62271-1- 2007

Magnitude of current passed: 100 Amperes dc

Test condition: At room temperature

Point of measurement: dc voltage drop across the terminals of the panel,

Specified values as per Cl. 6.4 of IEC Pub: 62271-1-2007	Voltage drop (mV)			Results / Remarks
		Before temperature rise test °C	After temperature rise test °C	
The measured values before and after temperature rise test shall not differ by more than 20%.	Ambient temperature	33.0	32.0	
	R phase	35.9	36.4	Within limits
	Y phase	36.9	36.9	Within limits
	B phase	36.8	36.8	Within limits

**2. Temperature Rise Test:** As per Cl.6.5 of IEC: 62271-200-2003 / IEC: 62271-1- 2007

Temporary connections:

Connections	Material	Quantity (Numbers)	Length (mm)	Section mm <sup>2</sup>	Remarks
Incoming side	PVC insulated copper conductor cable	Two	2000	185	Each Phase
Outgoing side	PVC insulated copper conductor cable	Two	2000	185	Each Phase
	Copper busbar (Shorting side)	One	600	40X10	Across RYB Phases

**Magnitude of current passed:**

R phase: 630 Amps	Y Phase: 630 Amps	B Phase: 630 Amps
Frequency 49.1 Hz to 49.6Hz		

*G.P. Vittal*  
(G.P.VITTAL)  
Test Engineer



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Average ambient temperature: 35.1°C

Temperature rise of the various parts at steady state:

Parts of Assemblies	Temperature rise at ambient air temperature not exceeding 40°C (as per Table 3 & Cl.6.5 of IEC : (62271-1- 2007)-(K)	Temperature rise (K)			Results / Remarks		
		R Phase	Y Phase	B Phase	R Phase	Y Phase	B Phase
VCB Contacts (Silver plated-In air)							
1)Incoming contacts	65	17.6	18.3	15.7	Within limit	Within limit	Within limit
2)Outgoing contacts	65	15.6	14.4	15.7	Within limit	Within limit	Within limit
LBS contacts (Silver plated-In air)							
1)Fixed contacts	65	19.8	17.2	20.8	Within limit	Within limit	Within limit
2)Moving contacts	65	11.6	21.6	20.3	Within limit	Within limit	Within limit
Terminals for the connection to external conductors by screws or bolts: (Silver Plated-In air)							
VCB Terminals							
1)Incoming Side	65	16.2	19.3	17.1	Within limit	Within limit	Within limit
2)Outgoing Side	65	13.8	14.8	16.3	Within limit	Within limit	Within limit
Panel Terminals							
1)Incoming Side	65	21.3	21.5	23.9	Within limit	Within limit	Within limit
2)Outgoing Side	65	17.8	18.0	17.5	Within limit	Within limit	Within limit
LBS terminal	65	21.3	22.7	21.4	Within limit	Within limit	Within limit
Accessible Parts - Expected to be touched in normal operation ( Panel Body) VCB handle							
	30		06.4			Within limit	
	30		0.50			Within limit	

*(Signature)*  
(G.P.VITTAL)  
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**NOTE**

- a) The test results relate only to the item(s) tested.
- b) Publication or reproduction of this test report in any form other than by complete set of the whole report and in the language written, is not permitted with out the written consent of CPRI
- 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.

(G.P.VITTAL)  
**Test Engineer**



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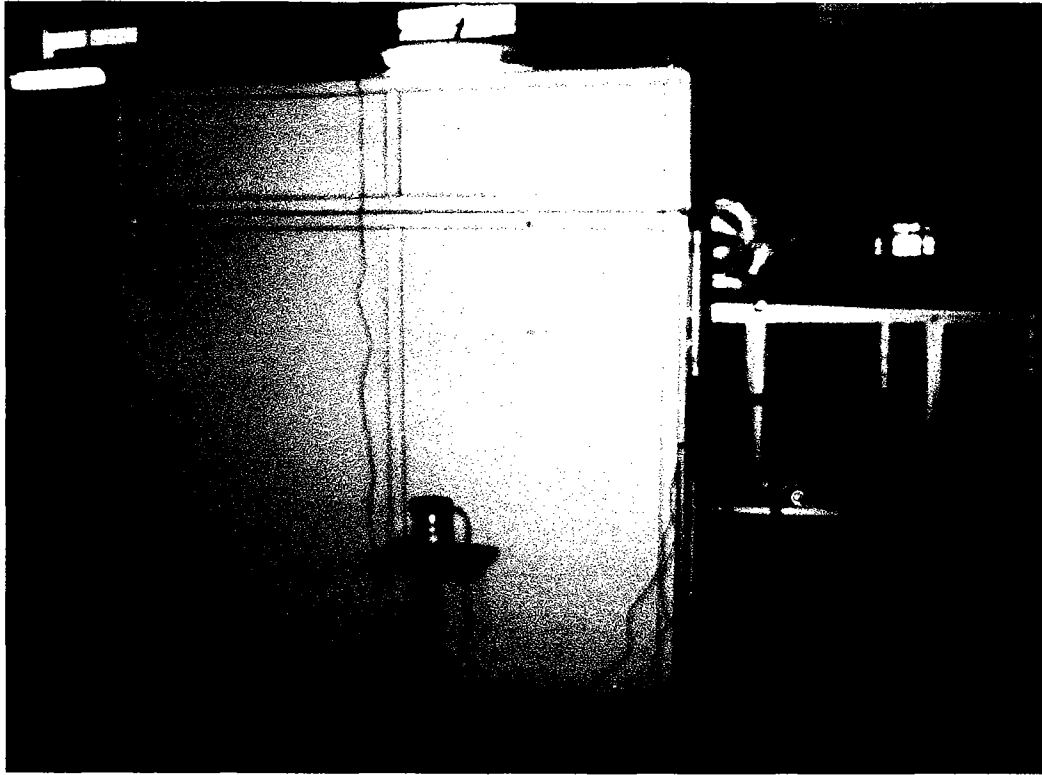
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**TEST PHOTO-1**

**Test Report No.: DCCD -11426**

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*G.P. Vittal*  
(G.P.VITTAL)  
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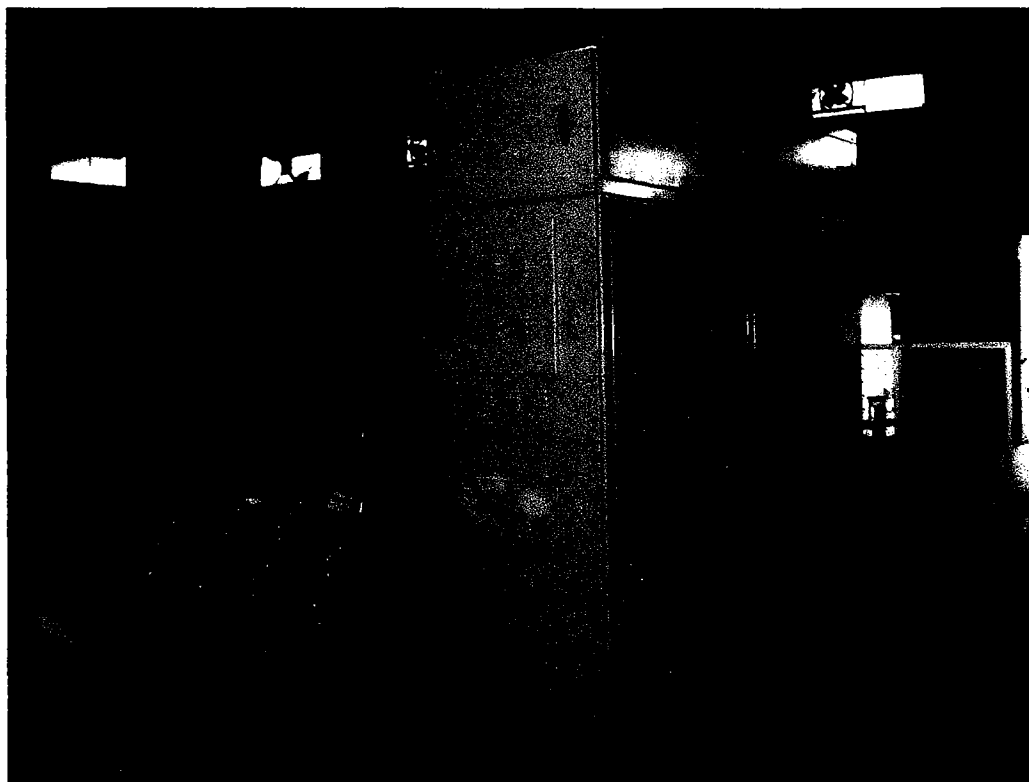


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**TEST PHOTO-2**

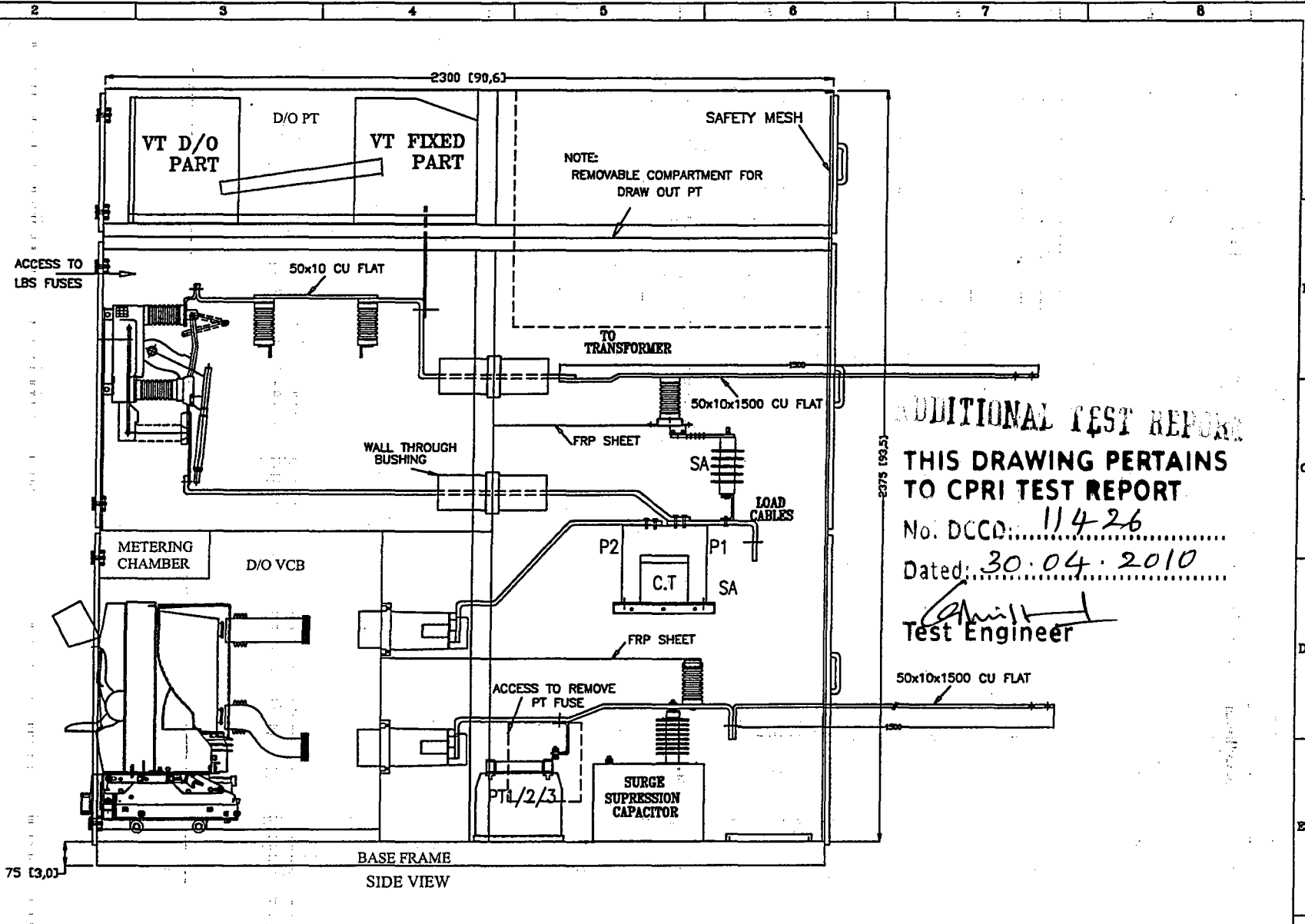
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(G.P.VITTAL)  
Test Engineer

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**ADDITIONAL TEST REPORT**  
 THIS DRAWING PERTAINS TO CPRI TEST REPORT  
 No. DCCD: 11426  
 Dated: 30.04.2010  
*[Signature]*  
 Test Engineer

TYPE: INDOOR		QTY: 1NO	ALL DIMENSION ARE IN mm		TITLE: GA FOR INDOOR METAL CLAD SWITCHGEAR PANEL		BRAND	JOB REF:	
					MFG BY:		KRISHNA		
							SCALE : NTS	SHT.No.	DRAWING No.
REV.	DATE	DESCRIPTION	DRAWN	PR CHD.	SN APPD.	SIGN			KEVCB-11-201A
CUSTOMER : ENERCON-ENG			PROJECT :			KRISHNA ENERGY PRIVATE LIMITED, DP#69, SIDCO Industrial Estate, Thirumudivakkam, Chennai-44 www.krishnaenergy.net			

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