

CENTRAL POWER RESEARCH INSTITUTE



12361

No. EATD/IP/2013

Dated: 24.01.2014

CPRI

M/s. Howell Energy System Pvt.Ltd.,
Plot No : A24, SIPCOT Industrial Growth centre,
Mathur village, Oragadam,
Kancheepuram Dist -602 105

KIND ATTENTION: Mr. Z Shafiudeen

SUB : IP 56 Category 2 Tests Report – reg.
REF : Customer request form Dated 07.01.2014

Dear Sir,

With reference to your above request, please find enclosed the Test Report No. **702EATDHYML2014S0024** dated: **08.01.2014** after conducting the IP 56 Category 2 Test as per IS/IEC 60529 Edition 2.1, 2001-02 Standard. On “**12kV, 800Amps, 25kA/3sec outdoor VCB Panel**” sample submitted by you for testing.

Any Anomalies / Discrepancies in the report may please be brought to our notice within forty – five days.

Kindly acknowledge the receipt of the test report.

Thanking you,

Yours faithfully,


(GUJJALA B. BALARAM)
Head Of The Division

Encl.: As above.

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)

CENTRAL POWER RESEARCH INSTITUTE



TEST REPORT

CPRI

Test Report Number: 702EATDHVML2014S0024

Dated: 08.01.2014

Name & Address of the Customer : M/s. Howell Energy System Pvt.Ltd.,
Plot No : A24, SIPCOT Industrial Growth centre,
Mathur village, Oragadam,
Kancheepuram Dist -602 105

Name & Address of the Manufacturer : M/s. Howell Energy System Pvt.Ltd.,
Plot No : A-24, SIPCOT Industrial Growth centre,
Mathur village, Oragadam,
Kancheepuram Dist -602 105

Particulars of sample tested

Condition of the sample on Receipt : New
Type : Outdoor Panel
Designation : 12kV, 800Amps, 25kA/3sec outdoor VCB Panel
Serial Number : HES-004
Number of samples tested : One only
Date (s) of Test (s) : 07.01.2014 and 08.01.2014
CPRI sample code no(s) : HVML2014S0024

Particulars of tests conducted

Test in accordance with : IP 56 Category 2, Test as per IS/IEC 60529 Edition 2.1, 2001-02
Standard / specification : Standard, Clause 13.4.
Sampling Plan : Not applicable
Customer's requirement : 1.IP 56 category 2, Test as per IS/IEC 60529 Edition 2.1,2001-02
Standard, Clause 13.4.
2.Insulation Resistance Measurement at 500V DC and
3.Power frequency High Voltage withstand test at 2.5 kV AC
to be applied for one minute between all terminals shorted
together and the body of 12KV,800amps,25KA/3sec O/D VCB
Panel Enclosure, to be conducted before and after IP 55 Test.
Deviations if any : -Nil-

Name of the witnessing persons

Customer's representative : Mr. Z Shafiudeen
Other than customer's representatives : None
Test subcontracted with
address of the laboratory : None

Documents constituting this report (In words)

Number of sheets : Three Only
Number of oscillograms : -Nil-
Number of graphs : -Nil-
Number of photos : -Nil-
Number of test circuit diagrams : -Nil-
Number of drawings : Three only. Drg. No. HES-004-01,
SHEET 01 of 03 to SHEET 03 of 03.

(GUJJALA B.BALARAJU)
Test Engineer



(M. SIDDHARTHA BHATT)
Additional Director

CENTRAL POWER RESEARCH INSTITUTE



Test Report Number: 702EATDHVML2014S0024

Dated: 08.01.2014 **CPRI**

TEST RESULTS:

SL. NO.	PARTICULARS		OBSERVATIONS/VALUES OBTAINED		
	TESTS CONDUCTED	REFERENCE CLAUSE			
1.0	IP 5X Category 2, test as per IS/IEC 60529 Edition 2.1, 2001-02 standard.	Clause 13.4 Protection against Ingress of solid foreign objects – Dust test.	Fine traces of dust found deposited uniformly on the bottom plates inside the 12kV, 800Amps, 25kA/3sec outdoor VCB Panel Enclosure.		
2.0	IP X6 test as per IS/IEC 60529 Edition 2.1, 2001-02 standard.	Clause 14.2.6 Protection against ingress of water – Powerful Hose jet of water using nozzle of Ø 12.5 mm, water flow rate 100 Ltrs/min $\pm$ 5% and 3 mts distance.	Small amount of water found accumulated on the rare left side of the bottom plate inside the 12kV, 800Amps, 25kA/3sec outdoor VCB Panel Enclosure.		
3.0	Electrical Tests Conducted		Before IP 5X Test	After IP 5X Test / Before IP X6Test	After IP X6 Test
3.1	Insulation Resistance Measurement at 500V DC, to be applied for one minute between all the terminals shorted together and the body of 12kV, 800Amps, 25kA/3sec outdoor VCB Panel Enclosure		>1.0 GΩ	>1.0 GΩ	>1.0 GΩ
3.2	Power frequency High Voltage Withstand test at 2.5 kV AC, to be applied for one minute between all the terminals shorted together and the body of 12kV, 800Amps, 25kA/3sec outdoor VCB Panel Enclosure		Withstood	Withstood	Withstood


 Test Engineer

CENTRAL POWER RESEARCH INSTITUTE



Test Report Number: 702EATDHVML2014S0024

Dated: 08.01.2014

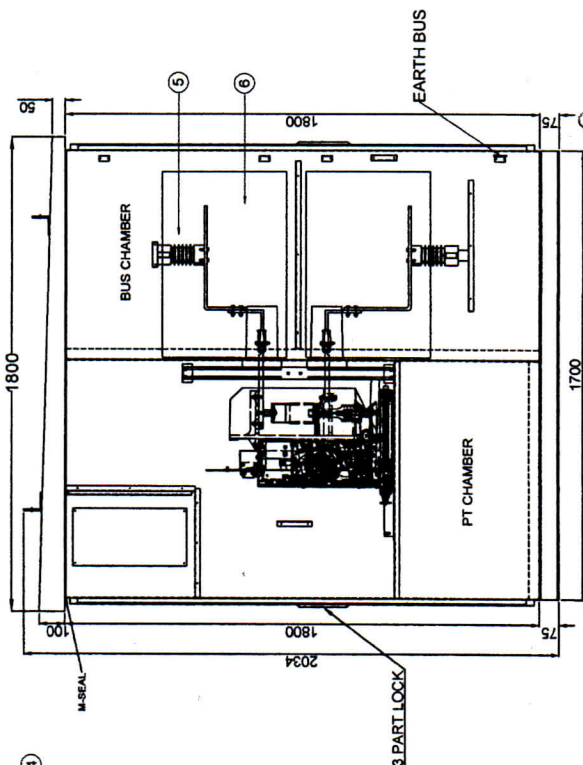
CPRI

NOTE

- a) The test results relate only to the item(s) tested.
- b) 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 consent of CPRI.
- c) Any correction / erasure invalidate this test report / certificate.
- d) NABL has accredited this laboratory as per ISO/IEC 17025:2005 standard vide certificate no. T – 0010 for the tests carried out.
- e) Any anomaly / discrepancy in the test report / certificate should be brought to our notice within 45 days from the date of issue.
- f) The verification of the sample drawings by CPRI is limited to dimensional checks only wherever possible.


Test Engineer

[illegible]



Attestation of this drawing is for the use of the drawing only.
This Drawing pertains to the Test
Report No. 305 EATDHYML 2014-0022
dated 08/01/2014

SIDE VIEW

TEST ENGINEER
E ENTRY/EATD, CPRI
Bengaluru - 560 080

VIEW D

CONTROL CABLES

SECTION VIEW D

0024

FO2 EAT

Re

Bengaluru - 560 080

1

ASKET

08-10-80

date

TECHNICAL SPECIFICATION

PANEL MAKE : HOWELL ENERGY SYSTEMS PVT.LTD	
RATED VOLTAGE	: 12KV
RATED CURRENT	: 800A
RATED FREQUENCY	: 50HZ
RATED STC	: 25KA/3SEC
INSULATION LEVEL	: 1228/75KVp

DESCRIPTION:

1. CANOPY
2. NAME PLATE
3. FOUNDATION FRAME
4. LIFTING HOOKS
5. SUPPORT INSULATOR
6. SMC SHEET

SECTION VIEW D

Diagram showing a cross-section of the door assembly. The door is shown with a rubber gasket (50x3 mm) and a silicon sealant applied to the frame.

SILICON SEALANT

RUBBER GASKET 50X3 mm

SECTION VIEW E

RUBBER GASKET
20x3 mm

SECTION VIEW F

RUBBER GASKET
20X3 mm



MANUFACTURED BY :

Alliance Partner
Schneider Electric
 For MV Components Integration
 SHEET NO:02 OF 03

HOWELL ENERGY SYSTEMS PVT. LTD.

PLOT NO: A-24,
SIPCOOT INDUSTRIAL GROWTH CENTRE,
MATHUR VILLAGE, ORAGADAM,
KANCHEEPURAM DIST. - 602105

SHEET NO:02 OF 03

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