

**CENTRAL POWER RESEARCH INSTITUTE  
(MEMBER STL)**



**CPRI**

**TEST REPORT**

**Test Report Number** : No.43/1/2016-HV/4508/RRISPAT/2185 **Dated:** 11/08/2016  
**Name & Address of the customer** : M/s. R. R. Ispat (A Unit of GPIL)  
Electrical Engineering Division,  
Plot No - 490/1, URLA Industrial Area, Raipur (C.G).  
Ref: Nil **Dated:** 01/08/2016

**Name & Address of the Manufacturer** : M/s. R. R. Ispat (A Unit of GPIL)  
Electrical Engineering Division,  
Plot No - 490/1, URLA Industrial Area, Raipur (C.G).

**Particulars of Samples tested**

**Condition of the sample on Receipt** : New.  
**Type** : Outdoor.  
**Designation** : 11kV 1250A PCVCB.  
**Serial Number** : RR/HT/11/16-17/01.  
**Number of samples tested** : One.  
**Date(s) of Test(s)** : 01/08/2016 & 03/08/2016.  
**CPRI Sample Code Number** : HV2016S0724.

**Particulars of tests conducted**

: 1) Lightning Impulse Voltage Test – Clause – 6.2.6.2.  
: 2) Dry Power Frequency Voltage Withstand Test – Clause – 6.2.6.1.  
: 3) Wet Power Frequency Voltage Withstand Test – Clause – 6.2.6.1.  
**Test in accordance with standard/ Specification** : As per IEC 62271-1/2011-08.  
**Sampling Plan** : Not Applicable.  
**Customer's requirement** : Test Voltage for both closed & open condition.  
**Deviations if any** : Nil.

**Name of the witnessing persons**

**Customer's representatives** : Shri. R.K. Trivedi – Sr. Manager, Electrical.  
**Other than customer's representatives** : None.  
**Test subcontracted with Address of the laboratory** : None.

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

**Number of sheets** : Five.  
**Number of oscilogram/s** : Thirty six (in five pages)  
**Number of graphs** : Nil.  
**Number of photo/s** : Nil.  
**Number of Test Circuit Diagrams** : Nil.  
**Number of drawing** : One {Drawing Nos. HAA100002 Rev.00}



*Priya S*  
12/8/2016  
(PRIYA S)  
**Test Engineer**

*U.R. Sheshagiri Rao*  
16.08.16  
(U.R. SHESHAGIRI RAO)  
**Test In charge (JD)**

*Dr. N. Vasudev*  
(Dr.N.VASUDEV)  
**Additional Director/HOD**

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Electrical Engineering Division,  
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Ref: Nil **Dated:** 01/08/2016

**Name & Address of the Manufacturer** : M/s. R. R. Ispat (A Unit of GPIL)  
Electrical Engineering Division,  
Plot No - 490/1, URLA Industrial Area, Raipur (C.G).

**Particulars of Samples tested**

**Condition of the sample on Receipt** : New.  
**Type** : Outdoor.  
**Designation** : 11kV 1250A PCVCB.  
**Serial Number** : RR/HT/11/16-17/01.  
**Number of samples tested** : One.  
**Date(s) of Test(s)** : 01/08/2016 & 03/08/2016.  
**CPRI Sample Code Number** : HV2016S0724.

**Particulars of tests conducted**

: 1) Lightning Impulse Voltage Test – Clause – 6.2.6.2.  
: 2) Dry Power Frequency Voltage Withstand Test – Clause – 6.2.6.1.  
: 3) Wet Power Frequency Voltage Withstand Test – Clause – 6.2.6.1.  
**Test in accordance with standard/ Specification** : As per IEC 62271-1/2011-08.  
**Sampling Plan** : Not Applicable.  
**Customer's requirement** : Test Voltage for both closed & open condition.  
**Deviations if any** : Nil.

**Name of the witnessing persons**

**Customer's representatives** : Shri. R.K. Trivedi – Sr. Manager, Electrical.  
**Other than customer's representatives** : None.  
**Test subcontracted with Address of the laboratory** : None.

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**Number of photo/s** : Nil.  
**Number of Test Circuit Diagrams** : Nil.  
**Number of drawing** : One {Drawing Nos. HAA100002 Rev.00}



*Priya S*  
12/8/2016  
(PRIYA S)  
**Test Engineer**

*U.R. Sheshagiri Rao*  
16.08.16  
(U.R. SHESHAGIRI RAO)  
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**CENTRAL POWER RESEARCH INSTITUTE  
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**CPRI**

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**Test Report Number** : No.43/1/2016-HV/4508/RRISPAT/2185 **Dated:** 11/08/2016  
**Name & Address of the customer** : M/s. R. R. Ispat (A Unit of GPIL)  
Electrical Engineering Division,  
Plot No - 490/1, URLA Industrial Area, Raipur (C.G).  
Ref: Nil **Dated:** 01/08/2016

**Name & Address of the Manufacturer** : M/s. R. R. Ispat (A Unit of GPIL)  
Electrical Engineering Division,  
Plot No - 490/1, URLA Industrial Area, Raipur (C.G).

**Particulars of Samples tested**  
**Condition of the sample on Receipt** : New.  
**Type** : Outdoor.  
**Designation** : 11kV 1250A PCVCB.  
**Serial Number** : RR/HT/11/16-17/01.  
**Number of samples tested** : One.  
**Date(s) of Test(s)** : 01/08/2016 & 03/08/2016.  
**CPRI Sample Code Number** : HV2016S0724.

**Particulars of tests conducted** : 1) Lightning Impulse Voltage Test – Clause – 6.2.6.2.  
2) Dry Power Frequency Voltage Withstand Test – Clause – 6.2.6.1.  
3) Wet Power Frequency Voltage Withstand Test – Clause – 6.2.6.1.  
**Test in accordance with standard/ Specification.** : As per IEC 62271-1/2011-08.  
**Sampling Plan** : Not Applicable.  
**Customer's requirement** : Test Voltage for both closed & open condition.  
**Deviations if any** : Nil.

**Name of the witnessing persons**  
**Customer's representatives** : Shri. R.K. Trivedi – Sr. Manager, Electrical.  
**Other than customer's representatives** : None.  
**Test subcontracted with Address of the laboratory** : None.

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

**Number of sheets** : Five.  
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**Number of graphs** : Nil.  
**Number of photo/s** : Nil.  
**Number of Test Circuit Diagrams** : Nil.  
**Number of drawing** : One {Drawing Nos. HAA100002 Rev.00}



*Priya S*  
12/8/2016  
(PRIYA S)  
**Test Engineer**

*U.R. Sheshagiri Rao*  
16.08.16  
(U.R. SHESHAGIRI RAO)  
**Test In charge (JD)**

*Dr. N. Vasudev*  
16/8/16  
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**CENTRAL POWER RESEARCH INSTITUTE  
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**Name & Address of the customer** : M/s. R. R. Ispat (A Unit of GPIL)  
Electrical Engineering Division,  
Plot No - 490/1, URLA Industrial Area, Raipur (C.G).  
Ref: Nil **Dated:** 01/08/2016  
**Name & Address of the Manufacturer** : M/s. R. R. Ispat (A Unit of GPIL)  
Electrical Engineering Division,  
Plot No - 490/1, URLA Industrial Area, Raipur (C.G).  
**Particulars of Samples tested**  
**Condition of the sample on Receipt** : New.  
**Type** : Outdoor.  
**Designation** : 11kV 1250A PCVCB.  
**Serial Number** : RR/HT/11/16-17/01.  
**Number of samples tested** : One.  
**Date(s) of Test(s)** : 01/08/2016 & 03/08/2016.  
**CPRI Sample Code Number** : HV2016S0724.  
**Particulars of tests conducted** : 1) Lightning Impulse Voltage Test – Clause – 6.2.6.2.  
2) Dry Power Frequency Voltage Withstand Test – Clause – 6.2.6.1.  
3) Wet Power Frequency Voltage Withstand Test – Clause – 6.2.6.1.  
**Test in accordance with standard/ Specification.** : As per IEC 62271-1/2011-08.  
**Sampling Plan** : Not Applicable.  
**Customer's requirement** : Test Voltage for both closed & open condition.  
**Deviations if any** : Nil.  
**Name of the witnessing persons**  
**Customer's representatives** : Shri. R.K. Trivedi – Sr. Manager, Electrical.  
**Other than customer's representatives** : None.  
**Test subcontracted with Address of the laboratory** : None.

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

**Number of sheets** : Five.  
**Number of oscilogram/s** : Thirty six (in five pages)  
**Number of graphs** : Nil.  
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**Number of Test Circuit Diagrams** : Nil.  
**Number of drawing** : One {Drawing Nos. HAA100002 Rev.00}



*Priya S*  
12/8/2016  
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*Dr. N. Vasudev*  
16/8/16  
(Dr.N.VASUDEV)  
**Additional Director/HOD**

# CENTRAL POWER RESEARCH INSTITUTE

## TEST REPORT



**CPRI**

Test Report Number: 214EATDHV2016S0724

Dated: 05.08.2016

**Name & Address of the Customer** : M/s. R.R. ISPAT, (A Unit of GPIL), ELECT.ENGG.Division,  
490/1, Urla Industrial Area, Urla, Raipur – 492003 (C.G).

**Name & Address of the Manufacturer** : M/s. R.R. ISPAT, (A Unit of GPIL), ELECT.ENGG.Division,  
490/1, Urla Industrial Area, Urla, Raipur – 492003 (C.G).

**Particulars of sample tested**

Condition of the sample on Receipt : New  
Type : Outdoor  
Description of test sample : Prototype 11 KV Out Door Vaccum Circuit Breaker.  
Serial Number : NIL  
Number of samples tested : One only  
Date (s) of Test (s) : 04.08.2016 & 05.08.2016  
CPRI sample code no(s) : EATDHV2016S0724

**Particulars of tests conducted**

Test in accordance with Standard / specification : IP 55 Category 2 Test, as per IEC-62271-200:2007 Clause 6.7.1 i.e., as per IEC 60529 Edition 2.2, 2013-08 Standard. Clause 13.4 and 14.2.5.  
Sampling Plan : Not applicable  
Customer's requirement : 1. IP 55 Category 2 Test, as per IEC 62271-200:2007 Clause 6.7.1 i.e., IEC 60529 Edition 2.2, 2013-08 Standard. Clause 13.4 and 14.2.5  
2. Insulation Resistance Measurement at 500V DC and Power Frequency High Voltage withstand test at 5.0kV ac to be applied for one minute between all the terminals shorted together and the body of the "Prototype 11 KV Out Door Vaccum Circuit Breaker." Enclosure, to be conducted before and after IP 55 Test.


Deviations if any : -Nil-

**Name of the witnessing persons**

Customer's representative : Mr. Pradeep Yadav, G.M., E & I.  
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 drawing : Three only.  
Two only. Drawing No. HAA100002,  
Sheet 1 of 2 & Sheet 2 of 2

  
(GUJJALA B. BALARAM)  
Test Engineer



  
(A.R. RAVIKUMAR)  
Head of Division

# CENTRAL POWER RESEARCH INSTITUTE

## TEST REPORT



**CPRI**

Test Report Number: 214EATDHV2016S0724

Dated: 05.08.2016

**Name & Address of the Customer** : M/s. R.R. ISPAT, (A Unit of GPIL), ELECT.ENGG.Division,  
490/1, Urla Industrial Area, Urla, Raipur – 492003 (C.G).

**Name & Address of the Manufacturer** : M/s. R.R. ISPAT, (A Unit of GPIL), ELECT.ENGG.Division,  
490/1, Urla Industrial Area, Urla, Raipur – 492003 (C.G).

### Particulars of sample tested

Condition of the sample on Receipt : New  
Type : Outdoor  
Description of test sample : Prototype 11 KV Out Door Vaccum Circuit Breaker.  
Serial Number : NIL  
Number of samples tested : One only  
Date (s) of Test (s) : 04.08.2016 & 05.08.2016  
CPRI sample code no(s) : EATDHV2016S0724

### Particulars of tests conducted

Test in accordance with Standard / specification : IP 55 Category 2 Test, as per IEC-62271-200:2007 Clause 6.7.1 i.e., as per IEC 60529 Edition 2.2, 2013-08 Standard. Clause 13.4 and 14.2.5.  
Sampling Plan : Not applicable  
Customer's requirement : 1. IP 55 Category 2 Test, as per IEC 62271-200:2007 Clause 6.7.1 i.e., IEC 60529 Edition 2.2, 2013-08 Standard. Clause 13.4 and 14.2.5  
2. Insulation Resistance Measurement at 500V DC and Power Frequency High Voltage withstand test at 5.0kV ac to be applied for one minute between all the terminals shorted together and the body of the "Prototype 11 KV Out Door Vaccum Circuit Breaker." Enclosure, to be conducted before and after IP 55 Test.


Deviations if any : -Nil-

### Name of the witnessing persons

Customer's representative : Mr. Pradeep Yadav, G.M., E & I.  
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 drawing : Three only.  
Two only. Drawing No. HAA100002,  
Sheet 1 of 2 & Sheet 2 of 2

  
(GUJJALA B. BALARAM)  
Test Engineer



  
(A.R. RAVIKUMAR)  
Head of Division

# CENTRAL POWER RESEARCH INSTITUTE

## TEST REPORT



**CPRI**

**Test Report Number** : HRTL/016/August/16-17 **Dated:** 16.08.2016

**Name & Address of the Customer** : M/s. R.R.Ispat (A Unit of GPIL) ELECT. ENGG. DIVISION  
#490/1, Urla Industrial Area,  
Urla, Raipur-490003 (C.G)  
Ref.: Customer request form, dated: 08.08.2016

**Name & Address of the Manufacturer** : M/s. R.R.Ispat (A Unit of GPIL) ELECT. ENGG. DIVISION  
#490/1, Urla Industrial Area,  
Urla, Raipur-490003 (C.G)

**Particulars of sample tested** : 11KV, 1250A, PCVCB  
**Condition of the Sample on Receipt** : New  
Type : Outdoor  
Designation : Nil  
Serial Number : RR/HT/11/16-17/001  
Number of samples tested : One  
Date(s) of Test(s) : 08.08.2016 & 09.08.2016  
CPRI sample code no : HV2016S0724  
**Particulars of tests conducted** : 1.Temperature rise test at 1250Amps  
2.Measurement of Resistance

**Test in accordance with standard/specification** : IEC 62271-100:2012  
Sampling plan : Nil  
Customers requirement : NA  
Deviations if any : Nil

**Name of the witnessing persons**  
Customers representatives : Mr. Pradeep Yadav  
Other than Customers representatives : Nil  
Test subcontracted with address of the laboratory. : NA

### Documents constituting this report (in words)

Number of Sheets : Five  
Number of oscillograms : Nil  
Number of graphs : Nil  
Number of photos : Nil  
Number of Test Circuit Diagrams : Nil  
Number of Drawings : Two 1) HAA100003, SHEET: 1 of 1, REV: 00  
2) HAA100001, SHEET: 1 of 2, REV: 00

**(RAKESH. K. G)**  
Test Engineer



**(GANGA. S)**  
Additional Director

# CENTRAL POWER RESEARCH INSTITUTE

## TEST REPORT



**CPRI**

**Test Report Number** : HRTL/016/August/16-17 **Dated:** 16.08.2016

**Name & Address of the Customer** : M/s. R.R.Ispat (A Unit of GPIL) ELECT. ENGG. DIVISION  
#490/1, Urla Industrial Area,  
Urla, Raipur-490003 (C.G)  
Ref.: Customer request form, dated: 08.08.2016

**Name & Address of the Manufacturer** : M/s. R.R.Ispat (A Unit of GPIL) ELECT. ENGG. DIVISION  
#490/1, Urla Industrial Area,  
Urla, Raipur-490003 (C.G)

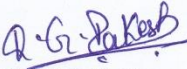
**Particulars of sample tested** : 11KV, 1250A, PCVCB  
**Condition of the Sample on Receipt** : New  
Type : Outdoor  
Designation : Nil  
Serial Number : RR/HT/11/16-17/001  
Number of samples tested : One  
Date(s) of Test(s) : 08.08.2016 & 09.08.2016  
CPRI sample code no : HV2016S0724  
**Particulars of tests conducted** : 1.Temperature rise test at 1250Amps  
2.Measurement of Resistance

**Test in accordance with standard/specification** : IEC 62271-100:2012  
Sampling plan : Nil  
Customers requirement : NA  
Deviations if any : Nil


**Name of the witnessing persons**  
Customers representatives : Mr. Pradeep Yadav  
Other than Customers representatives : Nil  
Test subcontracted with address of the laboratory. : NA

### Documents constituting this report (in words)

Number of Sheets : Five  
Number of oscillograms : Nil  
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Number of photos : Nil  
Number of Test Circuit Diagrams : Nil  
Number of Drawings : Two 1) HAA100003, SHEET: 1 of 1, REV: 00  
2) HAA100001, SHEET: 1 of 2, REV: 00

  
**(RAKESH. K. G)**  
Test Engineer



  
**(GANGA. S)**  
Additional Director





# CENTRAL POWER RESEARCH INSTITUTE

## TEST REPORT



CPRI

**Test Report Number** : EVRC.EEL.MISC.023.1617 Dated: 10.10.2016

**Name & Address of the Customer** : M/s. R.R.ISPAT (A Unit of Godawari Power & ISPAT Ltd.),  
490/1, Urla Industrial Area, Urla,  
Raipur – 492 003, Chhattisgarh.  
Reference : Customer Request Form, Dated 31.08.2016

**Name & Address of the Manufacturer** : M/s. R.R.ISPAT (A Unit of Godawari Power & ISPAT Ltd.),  
490/1, Urla Industrial Area, Urla,  
Raipur – 492 003, Chhattisgarh.

**Particulars of the Sample Tested** :

Condition of Sample on Receipt : New  
Type : SPCV11  
Designation : 11 kV, 1250 A Outdoor porcelain clad vacuum circuit breaker  
Serial Number : RR/HT/11/16-17/01  
Number of samples Tested : One  
Date(s) of Test(s) : 1.09.2016 & 02.09.2016  
CPRI Sample Code No. : HV2016S0724

**Particulars of Tests Conducted** : a. Resonance Search Test and  
b. Seismic Test

**Test in accordance with Standard / specification** : Nil


Sampling Plan : Not applicable  
Customer's requirement : Yes, Design spectrum as per IS 1893 (Part 1) – 2002, Zone V  
(Soft soil site condition)  
Deviation if any : Nil

**Name of the Witnessing Persons**


Customer's representatives : Mr. R.K. Trivedi  
Other than customer's representatives : Nil  
Test subcontracted with address of the laboratory : None

**Documents constituting this Report**

Number of Sheets (Total) : Eighteen  
Number of Oscillograms : One  
Number of Graphs : Twenty three  
Number of Photos/Figure : Two  
Number of Test Circuit Diagrams : Nil  
Number of Drawings : Two

  
(R. PANNEER SELVAM)  
TEST ENGINEER



  
( Dr. R. RAMESH BABU )  
DIRECTOR

Sheet 1 of 18

# CENTRAL POWER RESEARCH INSTITUTE

## TEST REPORT



CPRI

**Test Report Number** : EVRC.EEL.MISC.023.1617 Dated: 10.10.2016

**Name & Address of the Customer** : M/s. R.R.ISPAT (A Unit of Godawari Power & ISPAT Ltd.),  
490/1, Urla Industrial Area, Urla,  
Raipur – 492 003, Chhattisgarh.  
Reference : Customer Request Form, Dated 31.08.2016

**Name & Address of the Manufacturer** : M/s. R.R.ISPAT (A Unit of Godawari Power & ISPAT Ltd.),  
490/1, Urla Industrial Area, Urla,  
Raipur – 492 003, Chhattisgarh.

**Particulars of the Sample Tested** :

Condition of Sample on Receipt : New  
Type : SPCV11  
Designation : 11 kV, 1250 A Outdoor porcelain clad vacuum circuit breaker  
Serial Number : RR/HT/11/16-17/01  
Number of samples Tested : One  
Date(s) of Test(s) : 1.09.2016 & 02.09.2016  
CPRI Sample Code No. : HV2016S0724

**Particulars of Tests Conducted** : a. Resonance Search Test and  
b. Seismic Test

**Test in accordance with Standard / specification** : Nil


Sampling Plan : Not applicable  
Customer's requirement : Yes, Design spectrum as per IS 1893 (Part 1) – 2002, Zone V  
(Soft soil site condition)  
Deviation if any : Nil

**Name of the Witnessing Persons**


Customer's representatives : Mr. R.K. Trivedi  
Other than customer's representatives : Nil  
Test subcontracted with address of the laboratory : None

**Documents constituting this Report**

Number of Sheets (Total) : Eighteen  
Number of Oscillograms : One  
Number of Graphs : Twenty three  
Number of Photos/Figure : Two  
Number of Test Circuit Diagrams : Nil  
Number of Drawings : Two

  
(R. PANNEER SELVAM)  
TEST ENGINEER



  
( Dr. R. RAMESH BABU )  
DIRECTOR

Sheet 1 of 18

# CENTRAL POWER RESEARCH INSTITUTE

## TEST REPORT



CPRI

**Test Report Number** : EVRC.EEL.MISC.023.1617 Dated: 10.10.2016

**Name & Address of the Customer** : M/s. R.R.ISPAT (A Unit of Godawari Power & ISPAT Ltd.),  
490/1, Urla Industrial Area, Urla,  
Raipur – 492 003, Chhattisgarh.  
Reference : Customer Request Form, Dated 31.08.2016

**Name & Address of the Manufacturer** : M/s. R.R.ISPAT (A Unit of Godawari Power & ISPAT Ltd.),  
490/1, Urla Industrial Area, Urla,  
Raipur – 492 003, Chhattisgarh.

**Particulars of the Sample Tested** :

Condition of Sample on Receipt : New  
Type : SPCV11  
Designation : 11 kV, 1250 A Outdoor porcelain clad vacuum circuit breaker  
Serial Number : RR/HT/11/16-17/01  
Number of samples Tested : One  
Date(s) of Test(s) : 1.09.2016 & 02.09.2016  
CPRI Sample Code No. : HV2016S0724

**Particulars of Tests Conducted** : a. Resonance Search Test and  
b. Seismic Test

**Test in accordance with Standard / specification** : Nil


Sampling Plan : Not applicable  
Customer's requirement : Yes, Design spectrum as per IS 1893 (Part 1) – 2002, Zone V  
(Soft soil site condition)  
Deviation if any : Nil

**Name of the Witnessing Persons**


Customer's representatives : Mr. R.K. Trivedi  
Other than customer's representatives : Nil  
Test subcontracted with address of the laboratory : None

**Documents constituting this Report**

Number of Sheets (Total) : Eighteen  
Number of Oscillograms : One  
Number of Graphs : Twenty three  
Number of Photos/Figure : Two  
Number of Test Circuit Diagrams : Nil  
Number of Drawings : Two

  
(R. PANNEER SELVAM)  
TEST ENGINEER



  
( Dr. R. RAMESH BABU )  
DIRECTOR

Sheet 1 of 18

CENTRAL POWER RESEARCH INSTITUTE  
(Member of STL)



TEST REPORT

**Test Report Number** SC16426A **Dated:** 20<sup>th</sup> September, 2016

**Name & Address of the Customer** M/s. R. R. Ispat,  
(A Unit of Godawari Power & Ispat Ltd.),  
490/1, URLA Industrial Area, Raipur – 493 221,  
Chhattisgarh, India.

**Name & Address of the Manufacturer** M/s. R. R. Ispat,  
(A Unit of Godawari Power & Ispat Ltd.),  
490/1, URLA Industrial Area, Raipur – 493 221,  
Chhattisgarh, India.

**Particulars of sample tested** High-voltage switchgear and controlgear –  
11kV 1250A Vacuum Circuit Breaker

**Condition of the sample on Receipt** Good

Type Outdoor  
Designation SPCV11  
Serial Number RR/HT/11/16-17/01  
Number of samples tested One  
Date (s) of test (s) 10<sup>th</sup>, 11<sup>th</sup> August & 7<sup>th</sup> September, 2016  
CPRI sample code no(s). HV2016S0724

**Particulars of tests conducted** Short-time withstand current and peak withstand current

Test in accordance with Standard / specification Sub-clause 6.6 of IEC 62271-100:2008-04 with Amendment 1:2012-09

Sampling plan Not applicable  
Customer's requirement 25 kA rms for 3.0 s & 62.5 kA peak on main circuit  
Deviations if any Nil

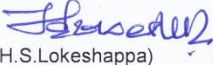
**Name of the witnessing persons**

Customer's representative Mr. R.K. Trivedi  
Other than customer's representatives None

Test subcontracted with address of the laboratory None

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

Number of sheets Four  
Number of oscillograms One  
Number of graphs Nil  
Number of photos Three  
Number of test circuit diagrams One  
Number of drawings Nineteen

  
(H.S.Lokeshappa)  
Test Engineer



  
(Swaraj Kumar Das)  
Joint Director

Sheet 1 of 4

**CENTRAL POWER RESEARCH INSTITUTE  
(MEMBER OF STL)**




**CPRI**

**TEST REPORT**

<b>Test Report Number</b>	S2150275	<b>Date :</b>
<b>Name &amp; address of the Customer</b>	M/s R.R.Ispat (A unit of GPIL) Elec.Engg. Division Plot No.490/1, Urla Industrial Complex Raipur (CG)	<b>06 APR 2015</b>
<b>Name &amp; address of the Manufacturer</b>	M/s R.R.Ispat (A unit of GPIL) Elec.Engg. Division Plot No.490/1, Urla Industrial Complex Raipur (CG)	
<b>Particulars of sample tested</b>	415V, 1000A , 50Hz, 3 Phase 4 wire PMCC Panel	
<b>Condition of sample on Receipt</b>	New	
Type	Nil	
Designation	Nil	
Serial number	Nil	
Number of samples tested	One	
Date(s) of Test(s)	11 <sup>th</sup> March 2015	
CPRI sample code no.	STDSST215S0286	
<b>Particulars of tests conducted</b>	Verification of the short circuit withstand strength	
<b>Test in accordance with Standard/specification</b>	As per clause 8.2.3 of IS: 8623 (Part 1)-1993	
Sampling plan	Not applicable	
Customer's requirement	Nil	
Deviations if any	Nil	
<b>Name of the Witnessing persons</b>		
Customer's representative	Shri R.K.Trivedi	
Other than Customer's representatives	Nil	
Test subcontracted with address of the laboratory	None	
<b>Documents constituting this report (in words)</b>		
Number of sheets	Five	
Number of oscillograms	Two	
Number of graphs	Nil	
Number of photos	One	
Number of Test circuit diagrams	Two	
Number of drawings	Three	

  
(SAUMITRA PATHAK)  
TEST ENGINEER



  
(ANUPAM AWASTHI)  
JOINT DIRECTOR

**CENTRAL POWER RESEARCH INSTITUTE  
(MEMBER OF STL)**

**TEST REPORT**



**CPRI**

<b>Test Report Number</b>	S2150275
<b>Name &amp; address of the Customer</b>	M/s R.R.Ispat (A unit of GPIL) Elec.Engg. Division Plot No.490/1, Urla Industrial Complex Raipur (CG)
<b>Name &amp; address of the Manufacturer</b>	M/s R.R.Ispat (A unit of GPIL) Elec.Engg. Division Plot No.490/1, Urla Industrial Complex Raipur (CG)
<b>Particulars of sample tested</b>	415V, 1000A , 50Hz, 3 Phase 4 wire PMCC Panel
<b>Condition of sample on Receipt</b>	New
Type	Nil
Designation	Nil
Serial number	Nil
Number of samples tested	One
Date(s) of Test(s)	11 <sup>th</sup> March 2015
CPRI sample code no.	STDSST215S0286
<b>Particulars of tests conducted</b>	Verification of the short circuit withstand strength
<b>Test in accordance with Standard/specification</b>	As per clause 8.2.3 of IS: 8623 (Part 1)-1993
Sampling plan	Not applicable
Customer's requirement	Nil
Deviations if any	Nil
<b>Name of the Witnessing persons</b>	
Customer's representative	Shri R.K.Trivedi
Other than Customer's representatives	Nil
Test subcontracted with address of the laboratory	None
<b>Documents constituting this report (in words)</b>	
Number of sheets	Five
Number of oscillograms	Two
Number of graphs	Nil
Number of photos	One
Number of Test circuit diagrams	Two
Number of drawings	Three

**Date :**

06 APR 2015

(SAUMITRA PATHAK)  
TEST ENGINEER



(ANUPAM AWASTHI)  
JOINT DIRECTOR

**CENTRAL POWER RESEARCH INSTITUTE  
(MEMBER OF STL)**


**TEST REPORT**



<b>Test Report Number</b>	S2150275	<b>Date :</b>
<b>Name &amp; address of the Customer</b>	M/s R.R.Ispat (A unit of GPIL) Elec.Engg. Division Plot No.490/1, Urla Industrial Complex Raipur (CG)	<b>06 APR 2015</b>
<b>Name &amp; address of the Manufacturer</b>	M/s R.R.Ispat (A unit of GPIL) Elec.Engg. Division Plot No.490/1, Urla Industrial Complex Raipur (CG)	
<b>Particulars of sample tested</b>	415V, 1000A , 50Hz, 3 Phase 4 wire PMCC Panel	
<b>Condition of sample on Receipt</b>	New	
Type	Nil	
Designation	Nil	
Serial number	Nil	
Number of samples tested	One	
Date(s) of Test(s)	11 <sup>th</sup> March 2015	
CPRI sample code no.	STDSST215S0286	
<b>Particulars of tests conducted</b>	Verification of the short circuit withstand strength	
<b>Test in accordance with Standard/specification</b>	As per clause 8.2.3 of IS: 8623 (Part 1)-1993	
Sampling plan	Not applicable	
Customer's requirement	Nil	
Deviations if any	Nil	
<b>Name of the Witnessing persons</b>		
Customer's representative	Shri R.K.Trivedi	
Other than Customer's representatives	Nil	
Test subcontracted with address of the laboratory	None	
<b>Documents constituting this report (in words)</b>		
Number of sheets	Five	
Number of oscillograms	Two	
Number of graphs	Nil	
Number of photos	One	
Number of Test circuit diagrams	Two	
Number of drawings	Three	

  
(SAUMITRA PATHAK)  
TEST ENGINEER



  
(ANUPAM AWASTHI)  
JOINT DIRECTOR



**CENTRAL POWER RESEARCH INSTITUTE  
(Member of STL)**



**CPRI**

**TEST REPORT**

**Test Report No.** : 2015/STL/353 **Dated :** 21 SEP 2015

**Name and Address of the Customer** : M/s R.R. Ispat (A Unit of GPIL),  
Plot No. 490/1, Urla Industrial Area,  
Raipur (C.G.)

**Name and Address of the Manufacturer** : M/s R.R. Ispat (A Unit of GPIL),  
Plot No. 490/1, Urla Industrial Area,  
Raipur (C.G.)

**Particulars of Sample(s) Tested** : 415 V, 1000A, PMCC Panel

Condition of sample(s) on receipt : New  
Type : NIL  
Designation : NIL  
Serial Number(s) : RRI/14-15039  
Number of Sample(s) Tested : One  
CPRI sample code number(s) : STDSST215S0286  
Sealing of the sample if any : NIL

**Particulars of test(s) conducted** : Verification of Clearance & Creepage Distances  
Date(s) of Test(s) : 05/03/2015  
Test(s) in accordance with : Cl. 8.2.5 of IS : 8623 (Part-1), 1993  
Standard/specification :  
Sampling Plan : NIL  
Customer's Requirement : Minimum clearance Phase to Phase : 5.5mm,  
Phase to Neutral : 5.0mm and Minimum creepage distance :  
6.3mm declared by the customer for Pollution degree 3 and  
Material group IIIa

Deviations, if any : NIL

**Name of the witnessing persons**

Customer's Representatives : Mr. R.K. Trivedi, Sr. Manager (Elect)

Other than Customer's Representatives : NIL

Test subcontracted with name and address of the laboratory : NONE

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

No. of Sheet(s) : FIVE  
No. of Oscillogram(s) : NIL  
No. of Graph(s) : NIL  
No. of Photograph(s) : NIL  
No. of Test Circuit Diagram(s) : NIL  
No. of drawing(s) : THREE

(BHAGIRATH SHARMA)  
TEST ENGINEER



(A. AWASTHI)  
JOINT DIRECTOR

**CENTRAL POWER RESEARCH INSTITUTE  
(Member of STL)**



**CPRI**

**TEST REPORT**

**Test Report No.** : 2015/STL/353 **Dated:** 21 SEP 2015

**Name and Address of the Customer** : M/s R.R. Ispat (A Unit of GPIL),  
Plot No. 490/1, Urla Industrial Area,  
Raipur (C.G.)

**Name and Address of the Manufacturer** : M/s R.R. Ispat (A Unit of GPIL),  
Plot No. 490/1, Urla Industrial Area,  
Raipur (C.G.)

**Particulars of Sample(s) Tested** : 415 V, 1000A, PMCC Panel

Condition of sample(s) on receipt : New  
Type : NIL  
Designation : NIL  
Serial Number(s) : RRI/14-15039  
Number of Sample(s) Tested : One  
CPRI sample code number(s) : STDSST215S0286  
Sealing of the sample if any : NIL

**Particulars of test(s) conducted** : Verification of Clearance & Creepage Distances  
Date(s) of Test(s) : 05/03/2015  
Test(s) in accordance with : Cl. 8.2.5 of IS : 8623 (Part-1), 1993  
Standard/specification  
Sampling Plan : NIL  
Customer's Requirement : Minimum clearance Phase to Phase : 5.5mm,  
Phase to Neutral : 5.0mm and Minimum creepage distance :  
6.3mm declared by the customer for Pollution degree 3 and  
Material group IIIa

Deviations, if any : NIL

**Name of the witnessing persons**

Customer's Representatives : Mr. R.K. Trivedi, Sr. Manager (Elect)

Other than Customer's Representatives : NIL

Test subcontracted with name and address of the laboratory : NONE

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

No. of Sheet(s) : FIVE  
No. of Oscillogram(s) : NIL  
No. of Graph(s) : NIL  
No. of Photograph(s) : NIL  
No. of Test Circuit Diagram(s) : NIL  
No. of drawing(s) : THREE

(BHAGIRATH SHARMA)  
TEST ENGINEER



(A. AWASTHI)  
JOINT DIRECTOR

**CENTRAL POWER RESEARCH INSTITUTE  
(Member of STL)**



**TEST REPORT**

**CPRI**

**21 SEP 2015**

**Test Report No.** : 2015/STL/352      **Dated :** 21 SEP 2015

**Name and Address of the Customer** : M/s R.R. Ispat (A Unit of GPIL),  
Plot No. 490/1, Urla Industrial Area,  
Raipur (C.G.)

**Name and Address of the Manufacturer** : M/s R.R. Ispat (A Unit of GPIL),  
Plot No. 490/1, Urla Industrial Area,  
Raipur (C.G.)

**Particulars of Sample(s) Tested** : 415 V, 400A, Electrical Panel

Condition of sample(s) on receipt : New  
Type : NIL  
Designation : NIL  
Serial Number(s) : RRI/14-15045  
Number of Sample(s) Tested : One  
CPRI sample code number(s) : STDSST215S0287  
Sealing of the sample if any : NIL

**Particulars of test(s) conducted** : Verification of Dielectric Properties

Date(s) of Test(s) : 04/03/2015  
Test(s) in accordance with : Cl. 8.2.2 of IS : 8623 (Part-1), 1993.  
Standard/specification :  
Sampling Plan : NIL  
Customer's Requirement : NIL  
Deviations, if any : NIL


**Name of the witnessing persons**

Customer's Representatives : Mr. R.K. Trivedi, Sr. Manager (Elect)  
Other than Customer's Representatives : NIL


Test subcontracted with name and address of the laboratory : NONE

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

No. of Sheet(s) : FIVE  
No. of Oscillogram(s) : NIL  
No. of Graph(s) : NIL  
No. of Photograph(s) : NIL  
No. of Test Circuit Diagram(s) : NIL  
No. of drawing(s) : ONE

  
(BHAGIRATH SHARMA)  
TEST ENGINEER



  
(A. AWASTHI)  
JOINT DIRECTOR



**CENTRAL POWER RESEARCH INSTITUTE  
(Member of STL)**



**TEST REPORT**

**CPRI**

**21 SEP 2015**

**Test Report No.** : 2015/STL/352      **Dated :** 21 SEP 2015

**Name and Address of the Customer** : M/s R.R. Ispat (A Unit of GPIL),  
Plot No. 490/1, Urla Industrial Area,  
Raipur (C.G.)

**Name and Address of the Manufacturer** : M/s R.R. Ispat (A Unit of GPIL),  
Plot No. 490/1, Urla Industrial Area,  
Raipur (C.G.)

**Particulars of Sample(s) Tested** : 415 V, 400A, Electrical Panel

Condition of sample(s) on receipt : New  
Type : NIL  
Designation : NIL  
Serial Number(s) : RRI/14-15045  
Number of Sample(s) Tested : One  
CPRI sample code number(s) : STDSST215S0287  
Sealing of the sample if any : NIL

**Particulars of test(s) conducted** : Verification of Dielectric Properties

Date(s) of Test(s) : 04/03/2015  
Test(s) in accordance with : Cl. 8.2.2 of IS : 8623 (Part-1), 1993.  
Standard/specification :  
Sampling Plan : NIL  
Customer's Requirement : NIL  
Deviations, if any : NIL


**Name of the witnessing persons**

Customer's Representatives : Mr. R.K. Trivedi, Sr. Manager (Elect)  
Other than Customer's Representatives : NIL


Test subcontracted with name and address of the laboratory : NONE

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

No. of Sheet(s) : FIVE  
No. of Oscillogram(s) : NIL  
No. of Graph(s) : NIL  
No. of Photograph(s) : NIL  
No. of Test Circuit Diagram(s) : NIL  
No. of drawing(s) : ONE

  
(BHAGIRATH SHARMA)  
TEST ENGINEER



  
(A. AWASTHI)  
JOINT DIRECTOR

**CENTRAL POWER RESEARCH INSTITUTE  
(Member of STL)**



**TEST REPORT**

**CPRI**

**21 SEP 2015**

**Test Report No.** : 2015/STL/352      **Dated :** 21 SEP 2015

**Name and Address of the Customer** : M/s R.R. Ispat (A Unit of GPIL),  
Plot No. 490/1, Urla Industrial Area,  
Raipur (C.G.)

**Name and Address of the Manufacturer** : M/s R.R. Ispat (A Unit of GPIL),  
Plot No. 490/1, Urla Industrial Area,  
Raipur (C.G.)

**Particulars of Sample(s) Tested** : 415 V, 400A, Electrical Panel

Condition of sample(s) on receipt : New  
Type : NIL  
Designation : NIL  
Serial Number(s) : RRI/14-15045  
Number of Sample(s) Tested : One  
CPRI sample code number(s) : STDSST215S0287  
Sealing of the sample if any : NIL

**Particulars of test(s) conducted** : Verification of Dielectric Properties

Date(s) of Test(s) : 04/03/2015  
Test(s) in accordance with : Cl. 8.2.2 of IS : 8623 (Part-1), 1993.  
Standard/specification :  
Sampling Plan : NIL  
Customer's Requirement : NIL  
Deviations, if any : NIL


**Name of the witnessing persons**

Customer's Representatives : Mr. R.K. Trivedi, Sr. Manager (Elect)  
Other than Customer's Representatives : NIL

Test subcontracted with name and address of the laboratory : NONE

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

No. of Sheet(s) : FIVE  
No. of Oscillogram(s) : NIL  
No. of Graph(s) : NIL  
No. of Photograph(s) : NIL  
No. of Test Circuit Diagram(s) : NIL  
No. of drawing(s) : ONE

  
(BHAGIRATH SHARMA)  
TEST ENGINEER



  
(A. AWASTHI)  
JOINT DIRECTOR

**CENTRAL POWER RESEARCH INSTITUTE**  
(Member of STL)



**TEST REPORT**

**Test Report No.** : 2015/STL/351      Dated : **21 SEP 2015**

**Name and Address of the Customer** : M/s R.R. Ispat (A Unit of GPIL),  
Plot No. 490/1, Urla Industrial Area,  
Raipur (C.G.)

**Name and Address of the Manufacturer** : M/s R.R. Ispat (A Unit of GPIL),  
Plot No. 490/1, Urla Industrial Area,  
Raipur (C.G.)

**Particulars of Sample(s) Tested** : 415V AC, 400A, Electrical Panel

Condition of sample(s) on receipt : New  
Type : NIL  
Designation : NIL  
Serial Number(s) : RRI/14-15045  
Number of Sample(s) Tested : One  
CPRI sample code number(s) : STDSST215S0287  
Sealing of the sample, if any : No

**Particulars of test(s) conducted** : Degree of Protection IP-56 (Category – 2)

Date(s) of Test(s) : 03/03/2015 & 04/03/2015  
Test(s) in accordance with : Cl. 8.2.7 of IS: 8623 (Part-1), 1993  
Standard/specification :  
Sampling Plan : NIL  
Customer's Requirement : NIL  
Deviations, if any : NIL

**Name of the witnessing persons**

Customer's Representatives : Mr. R.K. Trivedi, Sr. Manager (Elect)  
Other than Customer's Representatives : NIL  
Test subcontracted with name and address of : NONE  
the laboratory

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

No. of Sheet(s) : FIVE  
No. of Oscillogram(s) : NIL  
No. of Graph(s) : NIL  
No. of Photograph(s) : NIL  
No. of Test Circuit Diagram(s) : NIL  
No. of drawing(s) : ONE

(BHAGIRATH SHARMA)  
TEST ENGINEER



(A. AWASTHI)  
JOINT DIRECTOR

**CENTRAL POWER RESEARCH INSTITUTE**  
(Member of STL)



**TEST REPORT**

**Test Report No.** : 2015/STL/351      Dated : **21 SEP 2015**

**Name and Address of the Customer** : M/s R.R. Ispat (A Unit of GPIL),  
Plot No. 490/1, Urla Industrial Area,  
Raipur (C.G.)

**Name and Address of the Manufacturer** : M/s R.R. Ispat (A Unit of GPIL),  
Plot No. 490/1, Urla Industrial Area,  
Raipur (C.G.)

**Particulars of Sample(s) Tested** : 415V AC, 400A, Electrical Panel

Condition of sample(s) on receipt : New  
Type : NIL  
Designation : NIL  
Serial Number(s) : RRI/14-15045  
Number of Sample(s) Tested : One  
CPRI sample code number(s) : STDSST215S0287  
Sealing of the sample, if any : No

**Particulars of test(s) conducted** : Degree of Protection IP-56 (Category – 2)

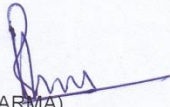
Date(s) of Test(s) : 03/03/2015 & 04/03/2015  
Test(s) in accordance with : Cl. 8.2.7 of IS: 8623 (Part-1), 1993  
Standard/specification :  
Sampling Plan : NIL  
Customer's Requirement : NIL  
Deviations, if any : NIL

**Name of the witnessing persons**


Customer's Representatives : Mr. R.K. Trivedi, Sr. Manager (Elect)  
Other than Customer's Representatives : NIL  
Test subcontracted with name and address of : NONE  
the laboratory

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

No. of Sheet(s) : FIVE  
No. of Oscillogram(s) : NIL  
No. of Graph(s) : NIL  
No. of Photograph(s) : NIL  
No. of Test Circuit Diagram(s) : NIL  
No. of drawing(s) : ONE

  
(BHAGIRATH SHARMA)  
TEST ENGINEER



  
(A. AWASTHI)  
JOINT DIRECTOR





## Certificate of Appointment

*RR Ispat (A Unit Of Godawari Power And Ispat Limited)*

is a appointed Franchises up to 15th Sep. 2017  
for the manufacture and sale of LV Switchgear \_ 'Ti' design, a fully type  
tested assembly in accordance with IEC 61439 of low voltage assemblies  
as per L&T's manufacturing guidelines and using L&T supplied components

A handwritten signature in black ink, appearing to read 'Raj Menghani'.

**Raj Menghani**  
General Manager - Electrical Systems and Equipment  
L&T Electrical & Automation