

TAG CORPORATION

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An ISO : 9001 Company

TEST REPORT NO. : CT / 054 / 11-12

Date : 08-08-2011

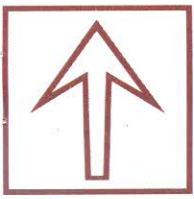
1. COMMODITY : ACSR Moose Conductor
Size- 54 / 7 / 3.53 mm
2. MANUFACTURER : Diamond Power Infrastructure Ltd.,
Vadodara.
3. CUSTOMER : Powergrid Corporation of India Ltd.
4. PROJECT : ACSR Moose Conductor for 400 KV D/C (Quad) Krishnapatnam-Nellore
Transmission Line and 400 KV D/C (Quad) Krishnapatnam-Gooty
Transmission Line (Part-I) associated with Transmission system for
Krishnapatnam UMPP (Part-A)

Specification No:CC-CS/68-SR1/CD-263/3/G5/NOA/3640
Date : 08/03/2011.
5. DATE OF TEST : 08 / 08 / 2011
6. WITNESSED BY : Mr.Pradeep Tripathi,
Engg.,
Diamond Power Infrastructure Ltd.,
7. TEST PERFORMED AT : TAG LABORATORIES, Chennai.
8. NATURE OF TEST : a) DC resistance test
b) UTS and surface condition test
c) Dry corona and RIV Test (Quad Bundle)
9. SAMPLE DETAILS : Five samples received
Sealed by Mr.K.K.Thakur,
CM (Inspection),
Powergrid, Vadodara.
10. SPECIFICATION APPLIED : Powergrid Specification
11. DETAILS & RESULTS : AS GIVEN IN PAGES 2 to 4


TESTING ENGINEER




TESTING INCHARGE



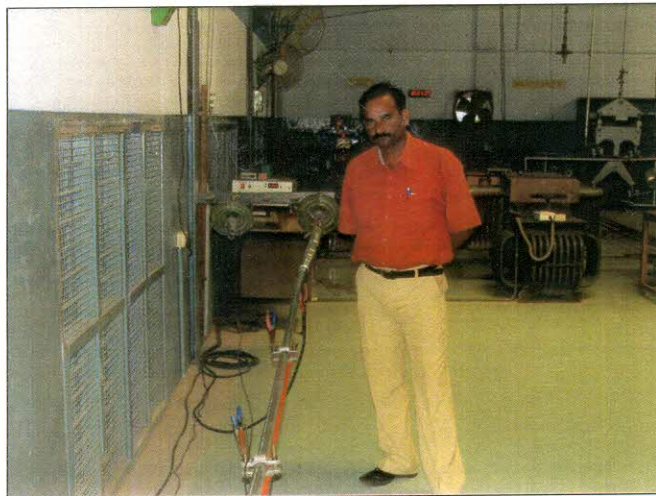
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1. DC Resistance Test

The DC Resistance of the sample of conductor was measured using a digital micro meter. Five readings were taken at five different places of the conductor each measuring one meter. The average of the five readings was worked out and the resistance value of the complete conductor/km at 20 Deg. C. was calculated.

Result:

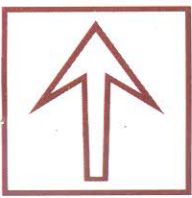
Commodity	ACSR Moose Conductor [54 / 7 / 3.53 mm]
Sample No. / Drum Number	DM - 07, M/C Name: (1+54) DPPL, TTS 3/5
Ambient Temperature	33.2 Deg. C.
Average measured resistance at ambient temp.	52.0 micro-ohms / metre
Resistance at 20 Deg. C.	0.04939 ohms / km
Rated DC resistance at 20 Deg. C.	0.05552 ohms / km




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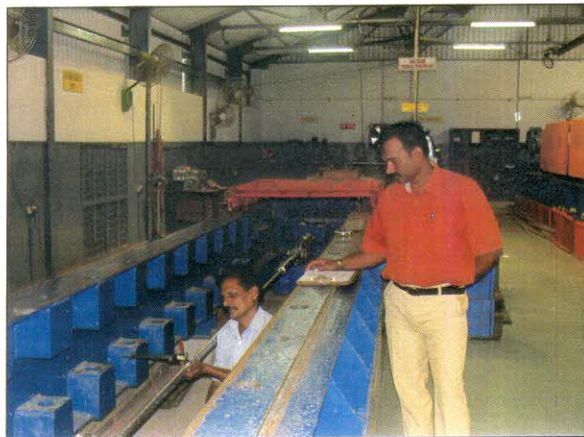
2. UTS and Surface Condition Test

The sample of the conductor was fitted with suitable compression dead ends and the assembly was mounted on a tensile testing machine. Initially a load of about 250-kg was applied and free length of the conductor was measured. Circles were marked in three places, two near the compressed ends and one in the center.

A load of 50 % of the specified UTS was applied gradually and held for one minute and after this period; the circles marked were checked for any distortion.

The load was then increased gradually till the rated UTS of the conductor was reached and held for one minute and then increased till the breakage of the conductor.

Commodity	ACSR Moose Conductor [54 / 7 / 3.53 mm]
Sample No. / Drum No.	DM - 07, M/C Name: (1+54) DPPL, TTS 3/5
Surface condition of the conductor at 50% of rated tensile strength	Satisfactory, no distortion of circles
Did the sample withstand rated UTS for 1 minute	Yes
Ultimate Breaking load	166.5 kN
Location of breakage	Few Aluminium Strands of the top layer broke near the clamp mouth at the tensioning end
Rated Tensile Strength	161.2 kN



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