



BSES Rajdhani Power Ltd

Title	:	PRE BID QUERIES
Project	:	SUPPLY OF 11kV GRADE TR-XLPE INSULATED ALUMINIUM CONDUCTOR POWER CABLE OF SIZE 3CX300SQ.MM (DUCTED CABLE & HIGH AMPACITY CABLE)
Tender Ref. No.	:	CMC/BR/18-19/FK/KM/667
Clarification Date	:	05.07.2018

S.No.	Tender Queries	BRPL Reply
1	For 11KV(E) 3Cx300sqmm A2XWY High Ampacity cable conductor details specification not clear. Please provide Specification for High ampacity HT Cable with Trapezoidal wire (in shape).	Stranded circular compacted made from either trapezoidal wires or circular wires, conductor diameter limits to be maintained as per IEC 60228
2	For 3 C X 300 sq. mm A2XW2Y2Y 11 KV (E) CCD cable	
	What is the colour of first Outer sheath thickness 2.68 mm (Min.)	Black, second has to be blue with a min thickness of 2.0 mm
	Thickness of second Outer sheath thickness 2.0 mm Minimum or Nominal not mention	
	For 3 C X 300 sq. mm A2XWY 11 KV (E)HA cable	
	Conductor resistance 0.100 ohms/km (Maximum) instead of 0.087 as mention in Annexure -B Clause G of GTP	Please read it as 0.09 ohms/km at 20 deg C
	What is the final extension date of tender	
3	Please inform of the specs being followed for the High Ampacity cables as the same is not covered in the standards listed in your tender enquiry.	These are generally as per IS 7098 (Part-2) and IEC 60502-2
4	Please provide Calculation for high ampacity of the cable; since as per Is 7098 Pt. II, the current rating for the 300 sq mm 33 kV cable with Aluminium conductor; XLPE insulation, is: 350 amps when buried direct in ground; 310 amps when buried in duct and 455 amps when laid in air.	This current is based on resistance of 0.100 ohm/km and 90 deg continuous conductor temp and will change as specified in GTP
5	As per Clause 8.0 C : Wires in each conductor to be as per Table 2 of IS 8130 which specifies Min. No. of wires to be 30. However, as per drawing the number of conductors is 1+6+10=17.	Min number of wires can be maintained provided dc resistance does not exceed 0.09 ohm/km at 20 deg and conductor diameter remains within limits as specified in IEC 60228
6	As per Clause G: Max conductor resistance at 20°C is mentioned as 0.087 ohm/km. A per IS 8130 and IEC 60228 it should be 0.1 ohm/km max. Pls clarify.	It is as 0.09 ohm/km at 20deg specified to facilitate increase in current
7	Please indicate the tests to confirm the specified parameters are achieved.	All type tests as per IS 7098 (Part-2)



BSES Rajdhani Power Ltd

Title	:	PRE BID QUERIES
Project	:	SUPPLY OF 11kV GRADE TR-XLPE INSULATED ALUMINIUM CONDUCTOR POWER CABLE OF SIZE 3CX300SQ.MM (DUCTED CABLE & HIGH AMPACITY CABLE)
Tender Ref. No.	:	CMC/BR/18-19/FK/KM/667
Clarification Date	:	05.07.2018

S.No.	Tender Queries	BRPL Reply
8	As discussed, for the material for Conductor screen; Insulation and Insulation screen we shall submit the manufacturer certificate only. All tests shall be conducted as per IS 7098 Pt.II.	Confirmed provided material is compatible for continuous temperature of 105 deg and short time temp of 250 deg C
9	CCD cable- The inner sheath material is PVC, however it is advisable to use PE	PE Confirmed
10	HA Cable- Water blocking tape is mentioned in the spec, however due higher compaction in conductors made from trapezoidal wire reduces the need for water blocking elements. The same is suggested to be removed.	Agreed water blocking test for conductor will not be applicable for conductor made from trapezoidal wires but will have a semiconducting water blocking tape over the conductor. This test however will be applicable for stranded circular compacted conductors
11	HA Cable- Maximum DC resistance is mentioned as 0.087 ohm/km, we suggest the same to 0.09 ohm/km.	confirmed

Specific queries against CCD cable

S.No	Page/Clause	Tender Query	BRPL Reply
12	Page 5 of 30	Replace "Y PVC outer sheath" with "2Y PE outer Sheath"	confirmed
13	Page 6 of 30	Replace "A 2X W Y 2Y" with "A 2X W 2Y 2Y"	confirmed
14	Cl. 2.1.1 a)	Delete" Conductor size of conductor strands shall be such that a minimum area of 300 mm ² can be achieved before and after the compaction"	confirmed
15	Cl. 2.1.1 b)	Replace "IS: 8130 /1984" with "IS: 8130"	Confirmed read it as IS 8130:2013
16	Cl. 2.1.1 d)	Replace "Water swellable yarn" with "water swellable tape/yarn"	confirmed
17	Cl. 2.1.1 f)	Amend it to read as Cl. 2.1.1 e)	
18	Cl. 2.1.3 c)	Amend to read as "Eccentricity of insulation shall be \leq 15%"	confirmed
19	Cl. 2.1.5	Please review requirement for water swellable tape under copper tape.	To be provided

Title	:	PRE BID QUERIES
Project	:	SUPPLY OF 11kV GRADE TR-XLPE INSULATED ALUMINIUM CONDUCTOR POWER CABLE OF SIZE 3CX300SQ.MM (DUCTED CABLE & HIGH AMPACITY CABLE)
Tender Ref. No.	:	CMC/BR/18-19/FK/KM/667
Clarification Date	:	05.07.2018

S.No	Page/Clause	Tender Query	BRPL Reply
20	Cl. 2.1.10 a)	Replace "width of wire" with "Diameter of wire"	confirmed
21	Cl. 2.1.10b)	Replace "6.54 kA/s" with "6.54 kA for one second"	confirmed
22	Cl. 2.1.12 a) Outer sheath	Replace "Extruded outer sheath of PE (ST7 as per IS 5831) with "Extruded outer sheath of PE (as per Table 3 of IS 7098 Pt. 2)	confirmed
23	Cl. 2.1.12 b), Outer sheath	Replace "Height 2.68 mm" with "Min. thickness 2.84 mm"	confirmed
24	Cl. 2.1.12 b), Conduit material over outer sheath	Replace "Height 2 mm" with "Min. thickness 2.0 mm"	confirmed
25	Cl. 2.1.12 c)	Replace " Outer Sheath shall be embossed" with "Conduit over outer sheath shall be embossed"	confirmed
26	Cl. 2.1.12 general	Please add "Suitable separator shall be provided in between outer sheath and outer conduit. Please also renumber the sub clauses.	No separator acceptable, please provide as per specification
		Please clarify the physical test requirements for conduit material	Shall confirm to requirements of PE ST 7 in addition to abrasion test
27	Cl. 3.0.0 c)-4	Delete strippability test from Routine tests	Confirmed, applicable in acceptance test
28	Cl. 3.0.0 e)	Replace "Cl. 18.2" with "Cl. 19.2"	
29	Cl. 3.0.0 e)-a)	Replace "Factory type test per PO shall be conducted once on sample basis" with "Type tests per PO shall be conducted once on sample basis at factory"	Confirmed
30	Cl. 3.0.0 e)-d)	Delete void and contamination test	To be performed



BSES Rajdhani Power Ltd

Title	:	PRE BID QUERIES
Project	:	SUPPLY OF 11kV GRADE TR-XLPE INSULATED ALUMINIUM CONDUCTOR POWER CABLE OF SIZE 3CX300SQ.MM (DUCTED CABLE & HIGH AMPACITY CABLE)
Tender Ref. No.	:	CMC/BR/18-19/FK/KM/667
Clarification Date	:	05.07.2018

S.No	Page/Clause	Tender Query	BRPL Reply
31	Cl. 3.0.0 e)-c, f, g, l & e)	Please specify frequency for these tests as 1 sample per contract	Cl. 3.0.0 e)- c) Impulse test shall be conducted once per PO f) No deviation g) No deviation l & e) No deviation
32	Cl. 4.0.0 b)	Replace "Cl. 2.1.11 c)" with "Cl. 2.1.12 c)" Replace "embossed over the Outer Sheath" with "embossed over the Conduit over outer sheath"	confirmed
33	Cl. 6.0.0 e) Annexure-B	Delete "Empty/scrap drum shall be taken by ----- by bidders to BRPL"	Not returnable Steel Drums
34	S. No. 3	IEC should be deleted	Not acceptable
35	S. No. 5	Replace "A2XWY2Y" with "A2XW2Y2Y"	confirmed
36	S. No. 8.0 B	Replace the existing content under Buyer's requirement with "Nom 300 Sqmm"	Confirmed but resistance requirement to be met
37	S. No. 8.0 D	Replace the existing content under Buyer's requirement with "AS per Cl. 2.1.1 c"	NA
38	S. No. 12.0	Delete "Specify no & size of filler at centre & core interstices"	To be provided
39	S. No. 14 C-b)	Specify "Nom. 3.15" under head Buyer's requirement	confirmed
40	S. No. 15 B	Replace '2.68' with '2.84'	confirmed
41	S. No. 18 a)	Delete "Specify the relevant IS/IEC followed for drum design"	confirmed
42	S. No. 21 & 25	Specify recommendations as per IS 3961 Part 7	N/A



BSES Rajdhani Power Ltd

Title	:	PRE BID QUERIES
Project	:	SUPPLY OF 11kV GRADE TR-XLPE INSULATED ALUMINIUM CONDUCTOR POWER CABLE OF SIZE 3CX300SQ.MM (DUCTED CABLE & HIGH AMPACITY CABLE)
Tender Ref. No.	:	CMC/BR/18-19/FK/KM/667
Clarification Date	:	05.07.2018

43	General		NA
Specific tests to be done as acceptance tests for High Ampacity and CCD cable from third party lab which must be accredited by both BIS and NABL. Tests will be witnessed by BRPL per PO			
44	Partial Discharge test and tan delta test before and after heating cycle		Mandatory
45	Impulse test		Mandatory
46	4 hours HV test after Partial Discharge, tan delta and impulse test		Mandatory
47	Bending radius test		Mandatory
48	Conductor Resistance test at 20°C		Mandatory