Enguing No > E7190269

BHARAT HEAVY ELECTRICALS LIMITED, JHANSI

SPECIFICATION CUM COMPLIANCE CERTIFICATE OF L.T.CABLE SPECIFICATION NO. L.T.CABLE - 2

NOTE:

- 1 VENDOR must submit complete information against clause No. 11 (Qualifying condition). The offer meeting this clause would only be processed.
- 2 The "offered" Column and where applicable, the "Deviations" Column of this format shall be filled in by the Vender and submitted along with the offer. Technical details also submitted with the offer. Inadequate / incomplete, ambiguous, or unsustainable information against any of the clauses of the specification / requirements shall be treated as non compliance.
- 3 The offer and all documents enclosed with offer should be in English language only.

SCOPE:

DESIGN, MANUFACTURING, TESTING, PACKING AND SUPPLY OF L.T.CABLE

S.NO. DESCRIPTION FOR BHEL REQUIREMENT		OFFERED	DEVIATIONS
1.0	SCOPE		
1.1	This specification governs the quality requirements of design, manufacturing, testing, packing at supplier works and delivery of L.T.cable complete in all respect.	VENDER TO CONFIRM	
2.0	REQUIREMENT		
2.1	Aluminium conductor PVC insulated, PVCsheated overall 1100 volt grade armoured cable confirming to IS 1554 part - I.	VENDER TO CONFIRM	
2.1.1	The required No. of conductor, conductor size and quantity are as below:	VENDER TO CONFIRM	
2.2.1.1	3 1/2 core x 50 sq. mm Quantity - 2000 meter	VENDER TO QUOTE	
2.1.1.2	3 1/2 core x 25 sq. mm Quantity - 3000 meter	VENDER TO QUOTE	
2.2.1.3	4 core x 16 sq. mm Quantity - 2000 meter	VENDER TO QUOTE	
2.2	Copper conductor PVC insulated, PVC sheated overall 1100 volt grade armoured cable confirming to IS 1554 part - I.	VENDER TO CONFIRM	
2.2.1	The required No. of conductor, conductor size and quantity are as below:	VENDER TO CONFIRM	
2.2.1.1	4 core 2.5 sq. mm Quantity - 10000 meter	VENDER TO QUOTE	•
3.0	APPLICABLE STANDARDS		·
	PVC insulated (heavy duty) electric cables part -I for working voltage upto and including 1100 volt - IS 1554 (Part -I)	VENDER TO CONFIRM	
	Conductor for insulated electric cable and flexible cords - IS 8130	VENDER TO CONFIRM	
3.3	PVC insulated and sheat of electric cables - IS 5831	VENDER TO CONFIRM	
	Mild steel formed wires and taps for armouring of cables - IS 3975	VENDER TO CONFIRM	
	Recommended current ratings for cables : part -2 PVC insulated and PVC sheated heavy duty cables - IS 3961 (Part -2)	VENDER TO CONFIRM	
3.6	Specification for hot dip galvanised coating on round steel wires - IS 4826	VENDER TO CONFIRM	
3.7	Wooden drums for electric cables - IS 10418	VENDER TO CONFIRM	

4.0 Co 4.1 Vo 4.2 Co 4.3 Co 4.4 Ins thic 4.5 Ty 4.6 Co 4.7 Inn 4.8 Arr 155 4.9 Ou 5.0 TE 5.1 All cat rep furr 6.0 GE 6.1 Cal tess sq. me 6.2 Cal woo 6.3 Sec cab she and 6.4 On mar	I acceptance and routine test shall be carried out on all ables at vender's works in the presence of BHEL presentative. Type test reports of similar cables shall be rnished. ENERAL able shall be delivered in maximum posible length of not set than 500 meter length for cable size 3 1/2 core 300mm and 185 sq mm cables and not less than 1000	VENDER TO CONFIRM VENDER TO CONFIRM	
4.1 Volume 4.2 Color class this this 4.5 Ty 4.6 Color 4.7 Inn 15: 4.9 Ou 5.0 TE 5.1 All cate rep fur 6.0 GE 6.1 Call tess sq. me 6.2 Cate wood 6.4 On mar	Coltage grade: 1100 volt Conductor: Strandard aluminium conductor as per IS 8130 Conductor: Standard EC grade High conductivity Copper lass 2 as per IS 8130 Insulation: Extruded PVC type A IS 5831, Nominal nickness as per IS Insulation: as per IS 1554 Inser sheath: Type ST-1 extruded PVC Insulation: Armouring shall be as per method (b) of IS 1554 Inser sheath: Type ST-1 Insulation: Type test reports of similar cables shall be rnished. Insulation: Type test reports of similar cables shall be shall be delivered in maximum posible length of not set than 500 meter length for cable size 3 1/2 core 300 imm and 185 sq mm cables and not less than 1000	VENDER TO CONFIRM	
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4.4 Installed thick thic	lass 2 as per IS 8130 Insulation: Extruded PVC type A IS 5831, Nominal nickness as per IS Insulation: Armoured multicore Insulation: Armoured multicore Insulation: Armoured multicore Insulation: Armouring shall be as per method (b) of IS Insulation: Type ST-1 extruded PVC Insulation: Armouring shall be as per method (b) of IS Insulation: Type ST-1 Insulation: Type ST-1 Insulation: Type ST-1 Insulation: Type test reports of similar cables shall be shall be the shall be delivered in maximum posible length of not set than 500 meter length for cable size 3 1/2 core 300 inmm and 185 sq mm cables and not less than 1000	VENDER TO CONFIRM	
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4.6 Co 4.7 Inn 4.8 Arr 15: 4.9 Ou 5.0 TE 5.1 All cat rep furr 6.0 GE 6.1 Cat tess sq. me 6.2 Cat woo 6.3 Sec cab she and 6.4 On mar	ore identification: as per IS 1554 Inner sheath: Type ST-1 extruded PVC Immoured: Armouring shall be as per method (b) of IS IS54 (part-1) Inter sheath: Type ST-1 I acceptance and routine test shall be carried out on all ables at vender's works in the presence of BHEL presentative. Type test reports of similar cables shall be rnished. I acceptance and routine test shall be carried out on all ables at vender's works in the presence of BHEL presentative. Type test reports of similar cables shall be rnished. I able shall be delivered in maximum posible length of not as than 500 meter length for cable size 3 1/2 core 300 imm and 185 sq mm cables and not less than 1000	VENDER TO CONFIRM	
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4.8 Arri 15:4.9 Ou 5.0 TE 5.1 All calculations for the furring furring 6.0 GE 6.1 Calculations for the furring	rmoured: Armouring shall be as per method (b) of IS 554 (part-1) uter sheath: Type ST-1 ESTS If acceptance and routine test shall be carried out on all ables at vender's works in the presence of BHEL presentative. Type test reports of similar cables shall be rnished. ENERAL able shall be delivered in maximum posible length of not as than 500 meter length for cable size 3 1/2 core 300 imm and 185 sq mm cables and not less than 1000	VENDER TO CONFIRM VENDER TO CONFIRM VENDER TO CONFIRM	
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5.0 TE 5.1 All cate rep furr 6.0 GE 6.1 Cal less sq. me 6.2 Cal wood 6.3 Sec cab she and 6.4 On mar	I acceptance and routine test shall be carried out on all ables at vender's works in the presence of BHEL presentative. Type test reports of similar cables shall be rnished. ENERAL able shall be delivered in maximum posible length of not ses than 500 meter length for cable size 3 1/2 core 300mm and 185 sq mm cables and not less than 1000	VENDER TO CONFIRM	
6.0 GE 6.1 Calless sq. me 6.2 Call wood cab she and 6.4 On mar	ables at vender's works in the presence of BHEL presentative. Type test reports of similar cables shall be rnished. ENERAL able shall be delivered in maximum posible length of not set than 500 meter length for cable size 3 1/2 core 300mm and 185 sq mm cables and not less than 1000		
6.1 Calless sq. me' 6.2 Call wood cab she and 6.4 On mar	able shall be delivered in maximum posible length of not ss than 500 meter length for cable size 3 1/2 core 300mm and 185 sq mm cables and not less than 1000	VENDER TO CONFIRM	
6.2 Cat woo 6.3 Sec cab she and 6.4 On mar	ss than 500 meter length for cable size 3 1/2 core 300mm and 185 sq mm cables and not less than 1000	VENDER TO CONFIRM	
6.3 Sec cab she and 6.4 On mar	eter length for other required cables.		
cab she and 6.4 On mar	ables shall be neatly rolled on wooden drums (seasoned pod) with both ends sealed with moisture proof sealing.	VENDER TO CONFIRM	
mar	Sequential marking of the length of the type and size of cable, voltage grade cable shall be provided on the outer sheath at every one meter. The imbossing shall be legible and indelible.		
the drur rota	the flange of the drum necessary information such as anufacturer's name, type, size, voltage grade, length of e cable shall be printed. An arrow shall be printed on the lum with suitable instructions to show the direction of ation of the drum.	VENDER TO CONFIRM	
	CUMENTATIONS		
spe	chnical data sheet in given format only (refer ecification point No. 8.0)	VENDER TO SUBMIT	
	P shall be furnished along with the offer	VENDER TO SUBMIT	
		VENDER TO CONFIRM	-
in or	opies of test certificates and technical data sheets with one week after inspection	VENDER TO CONFIRM	
3.1 Mak 3.2 Type	CHNICAL DATA SHEETS:	VENDER TO SUBMIT	

NO.	DESCRIPTION FOR BHEL REQUIREMENT	OFFERED	DEVIATIONS
8.4	Voltage grade	VENDER TO SUBMIT	
8.5	Suitable for system with:	VENDER TO SUBMIT	
	a) Service voltage	VENDER TO SUBMIT	
	b) Nature earthed/ unearthed	VENDER TO SUBMIT	
	Maximum conductor temp.	VENDER TO SUBMIT	
-	a) Continuous Deg. C	VENDER TO SUBMIT	
	b) Short Deg. C	VENDER TO SUBMIT	
	Conductor	VENDER TO SUBMIT	
0.7	a) Material	VENDER TO SUBMIT	
	b) Size (SQ. mm)	VENDER TO SUBMIT	
	c) No.of wires & diameter of each wire (No/mm)	VENDER TO SUBMIT	
8 8	Insulation	VENDER TO SUBMIT	
0.0	a) Material	VENDER TO SUBMIT	
	b) Type	VENDER TO SUBMIT	
	c) Thickness (nominal) mm	VENDER TO SUBMIT	
8 0	Inner sheath	VENDER TO SUBMIT	
0.0	a) Material	VENDER TO SUBMIT	
	b) Type	VENDER TO SUBMIT	
	c) Thickness (nominal) mm	VENDER TO SUBMIT	
_	d) Extruded Yes/ No	VENDER TO SUBMIT	
	e) Approx. outside dia over inner sheath mm.	VENDER TO SUBMIT	
0.10	Armouring	VENDER TO SUBMIT	
0.10	a) Material	VENDER TO SUBMIT	
	b) Size	VENDER TO SUBMIT	
		VENDER TO SUBMIT	<u> </u>
	c) DC resistance at 20 degree C (Ohm/km)	VENDER TO SUBMIT	<u> </u>
8.11	Overall sheath	VENDER TO SUBMIT	
	a) Material	VENDER TO SUBMIT	
	b) Type	VENDER TO SUBMIT	
	c) Thickness (nominal) mm	VENDER TO SUBMIT	
8.12	Approx. overall diameter (mm)		
8.13	Standard drum length with tolerance (m)	VENDER TO SUBMIT	
8.14	Net weight of cable (Kg/ Km)	VENDER TO SUBMIT	
8.1	Continous current rating for standard IS condition laid direct :Amps	VENDER TO SUBMIT	
	a) in ground	VENDER TO SUBMIT	
	b) In duct	VENDER TO SUBMIT	
	c) In air	VENDER TO SUBMIT	
8.10	Short circuit current for -I see.(KA)	VENDER TO SUBMIT	
8.1	7 Electrical parameters at maximum operating temp.(ohm/km)	VENDER TO SUBMIT	
	a) Resistance	VENDER TO SUBMIT	
	b) Reactance at 50 hz	VENDER TO SUBMIT	
	c) Impedence	VENDER TO SUBMIT	
	8 Recommended minimum bending radius	VENDER TO SUBMIT	.
	9 Dearating factor for following ambient temp. in air ground.	VENDER TO SUBMIT	
	a) At 30° C	VENDER TO SUBMIT	
	b) At 35° C	VENDER TO SUBMIT	
	c) At 45 ° C	VENDER TO SUBMIT	
	d) At 50 ° C	VENDER TO SUBMIT	-
8.2	0 Cable identification code	VENDER TO SUBMIT	
	1 List of routine and type tests certificates enclosed.	VENDER TO SUBMIT	T

DESIGN, MANUFACTURING, TESTING, PACKING AND SUPPLY OF L.T.CABLE S.NO. DESCRIPTION FOR BHEL REQUIREMENT OFFERED DESCRIPTION					
	<u></u>		OFFERED	DEVIATIONS	
	Inspection and testing of manufacturer works.		VENDER TO CONFIRM		
9.2	15 days advance informa representative can be dep	tion shall be given so that BHEL puted for inspection and testing.	VENDER TO CONFIRM		
10.0	GUARANTEE				
10.1	The cable shall be guarar 24 months from the date	nted for satisfactory operation of of receipt.	VENDER TO CONFIRM		
11.0	QUALIFYING CONDITIO	N		· · · · · · · · · · · · · · · · · · ·	
	Only those vender, who are in the line of cable manufacturing or authorised agents of cable manufacturer shall quote. The following informations are to be submitted with the offer. This is required from venders for qualifications of their offers.		VENDER TO SUBMIT		
11.2	Name of the cable manufacturer and company profile		VENDER TO SUBMIT		
11.3	Details of manufacturing facilities available at manufacturer works.		VENDER TO SUBMIT		
11.4	Details of test facilities available at manufacturer works.		VENDER TO SUBMIT		
ľ	BHEL reserves the right to verify information submited by vender. In case the information is found to be false/incorrect, the offer shall be rejected.		VENDER TO CONFIRM		
		2016/09	3016189		
	Sujeet Srivastava	Inder mathur	S.J.Chakraborty		
Sr. Engineer (WE&S)		Manager (WE&S)	DGM (WE		