

**Guaranteed Technical For 33 KV, 3x300 Sq.mm. (Armoured) XLPE cable**

| SI. No. | PARTICULARS   | Size Unit  |             |
|---------|---|------------|-------------|
| 1.      | Manufacturer's name and address.                                      |            |             |
| 2.      | Location of factory.  |            |             |
| 3.      | Standard to which cable conform.                                      |            |             |
| 4.      | <b><u>CONDUCTOR DETAILS</u></b>                                       |            |             |
| a)      | Material compositions class as per IS: 8130                           |            |             |
| b)      | Shape of stranded conductor.  |            |             |
| c)      | Number of strands in each core (Min.)                                 | No.        |             |
| d)      | Diameter of each strand.  | mm.        |             |
| e)      | Nominal cross section area of each core                               | Sq.mm      |             |
| f)      | Guaranteed weight of Alum. per Km. (Min.)                             | Kg/Km      | <b>2433</b> |
| 5.      | <b><u>CONDUCTOR SCREENING</u></b>                                     |            |             |
| a)      | Material  |            |             |
| b)      | Thickness (Min.)  | mm.        |             |
| 6.      | <b><u>INSULATION</u></b>  |            |             |
| a)      | Material with ref. of ISS   |            |             |
| b)      | Thickness of insulation (Min.)  | mm.        |             |
| 7.      | <b><u>INSULATION SCREENING</u></b>                                    |            |             |
| a)      | Material<br>Semi conducting part<br>Metallic part                     |            |             |
| b)      | Thickness for;<br>Semi conducting part (Min.)<br>Metallic Part (Min.) | mm.<br>mm. |             |
| 8.      | <b><u>INNER SHEATH</u></b>  |            |             |
| a)      | Material  |            |             |
| b)      | Thickness (Min.)  | mm.        |             |
| 9.      | Filler material.  |            |             |
| 10.     | <b><u>ARMOURING</u></b>   |            |             |
| a)      | Material  |            |             |
| b)      | Diamension of flat Armouring strip                                    | mm x mm    |             |
| c)      | Wt. of Zinc coating   | Kg./Km.    |             |
| 11.     | <b><u>OUTER SHEATH</u></b>  |            |             |
| a)      | Material  |            |             |
| b)      | Thickness of sheath (min).  | mm.        |             |
| 12.     | Weight of finished cable (Approx.)                                    | Kg/Km.     |             |
| 13.     | Standard delivery length  | Meter      |             |
| 14.     | Tolerance in stranded drum length of the cable.                       | %          |             |
| 15.     | Gross weight of drum including cable (Approx.)                        | Kg.        |             |
| 16.     | Recommended depth of laying   | mm         |             |
| 17.     | Short circuit current for duration of short circuit of 1 sec.         |            |             |
| 18.     | Voltage drop per 1000 Mtr. length at rated current..                  |            |             |
| a)      | When laid directly in around.   | Volt/Km    |             |
| b)      | When laid directly in covered trenches.                               | Volt/Km    |             |
| c)      | When laid directly in Air   | Volt/Km    |             |
| 19.     | Impulse voltage withstand   | KV         |             |

**Tender Specification No: PVVNL- MT/MM/38(s)/23-24**

|        |  |               |  |
|--------|--|---------------|--|
| 20.    | Derating factors under various conditions of installation:   |               |  |
| a)     | D.C. Resistance per core at 20°C (Max.)  | Ohm/Km.       |  |
| b)     | A.C. Resistance per core at 20°C (Max).  | Ohm/Km.       |  |
| c)     | Reactance per core   | Ohm/Km.       |  |
| d)     | Capacitance per core   | Microf/Km     |  |
| e)     | Insulation resistance at 27°C (Min).   | M.Ohm/K m.    |  |
| f)     | Volume resistivity of insulation at 27°C (Min).  | Ohm/Km.       |  |
| 21.    | Maximum partial discharge magnitude at 1.5 U <sub>o</sub>  | PC            |  |
| 22.    | Maximum cable charging current at normal operating voltage.  | Amp/Km.       |  |
| 23.    | Recommended minimum bending radius.  | mm.           |  |
| 24     | Whether following embossing shall be done as per relevant clause of specification?   |               |  |
|        | i) Property of PVVNL   |               |  |
|        | ii) Name of manufacture  |               |  |
|        | iii) Voltage and grade and size  |               |  |
|        | iv)specification no  |               |  |
|        | v) Year of manufacture is being provided at the regular intervals of one meters of outer most sheath of cable.   |               |  |
|        | vi) Whether length of cable at every interval of 1 meter shall be printed over outer sheath.   |               |  |
| 25.    | Name of manufacturers of bought out raw materials.   |               |  |
| i)     | Aluminium  |               |  |
| ii)    | PVC Compound   |               |  |
| iii)   | XLPE Compound  |               |  |
| iv)    | Galvanised steel strip for armouring.  |               |  |
| v)     | Any other.   |               |  |
| 26.(a) | Whether similar cable has been type tested   | YES/NO        |  |
| (b)    | If yes, when and where was it tested.  |               |  |
| (c)    | It is expected that you will enclose an authenticated electrostat copy of type test report of similar design, size and type of cable. Please inform whether or not you have enclosed the same. | YES/NO        |  |
| (d)    | If yes, how many sheets does it contain.   | No. of sheets |  |
| 27.    | Whether wood preservative shall be applied to whole drum?  | YES/NO        |  |
| 28.    | Whether all ferrous parts shall be treated with rust preventive finish or coating.   | YES/NO        |  |
| 29.    | Whether water proof paper layer shall be applied to the surface of drum and over the outer cable layer.  | YES/NO        |  |
| 30.    | Reference of licence in use ISI and other certification marks, if any.   |               |  |