

SPECIAL INSTRUCTIONS TO TENDERERS

- 1 Fuse switches / switch fuses shall be of any one of the following make only Gec Alstom, L&T, GEC
- 2 The DP switches, SP Switches, plugs and sockets shall be of standard make agreeable to Engineer in charge and should have been certified by ISI.
- 3 All materials supplied by the contractor should conform to the relevant IS / BS specification.
- 4 Single core, Single / Multi strand cables shall be of ISI approved make only, The armored cable shall be of ISI approved make only, Test Certificate of cables are to be submitted.
- 5 The wiring shall conform to IS 732 or any other relevant INDIAN STANDARD SPECIFICATION and INDIAN ELECTRICITY RULES. The installation shall also conform to the regulation for the electrical equipments of building laid down by Insurance Association of India (FIRE SECTION).
- 6 In case of PVC / steel conduit wiring the switches, plug sockets, regulators and other controls should be mounted on metal boxes. These boxes as well as metal boxes used for street light controls should be fabricated as per IS:5133 (part – 1 1969)
- 7 Final lay out, as well as Electrical drawings etc, should be submitted in advance for BHEL's approval.
- 8 Preparation of Electrical drawings, submitting the same to CEA / Local TNEB authorities to obtain EB Service connection etc, are under the contractor's scope.
- 9 The contractor should be present at the time of inspection of the installation by the Electrical Inspector. Any defect pointed out by the Electrical Inspector in the equipments (or) installations supplied by the contractor should be immediately rectified by the contractor free of cost.
- 10 The 'Completion Report' should be submitted as per Appendix-F of IS 732.

- 11 Recommended makes of different accessories:

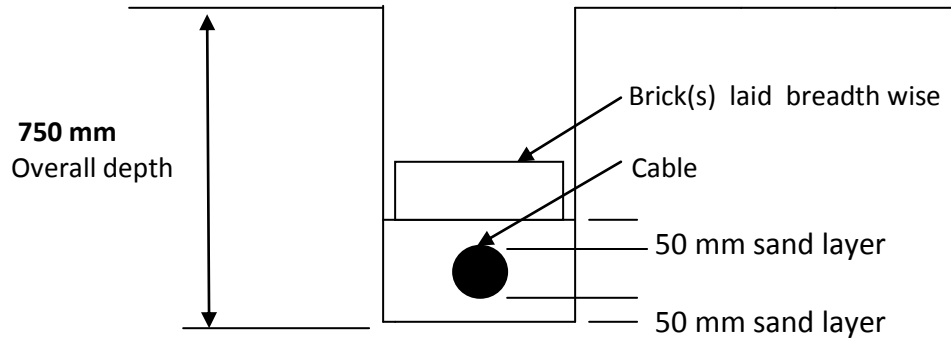
	Name of accessory	Recommended make
01	Luminaries	Philips, GEC, Crompton, Bajaj, Havells
02	Ceiling fans	Orient, Crompton, Usha, Khaitan, Havells, Almonard
03	Switches / Sockets	Anchor, Kundan, Record with FAN/LIGHT marking
04	ICDP / ICTPN Switches	Bosma, Standard, GEM, GE, Raj
05	MCBs /	MDS Loadster, legrand, L&T, Hager, Siemens
06	Rotary switches	Salzer, Kaycee, Siemens, L&T,
07	Metal Clad sockets	Sakthi Crown, B&C/Crompton, BCH
08	Single core cable	ISI approved make only
09	Armored cable	ISI approved make only
10	Fuse Distribution Boards	Bosma, Raj, GE, GEM, Standard
11	Exhaust fans	Orient, Crompton, Usha, Khaitan, Havells, Almonard
12	Combination Fuse Switches	GEC Alstom make
13	Metal Clad Sockets	Best & Crompton, Sakthi Crown

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IF CABLE / CABLES HAS TO BE LAID IN GROUND THE FOLLOWING SPECIFICATIONS SHOULD BE FOLLOWED.

A

For LOW TENSION cable SINGLE run

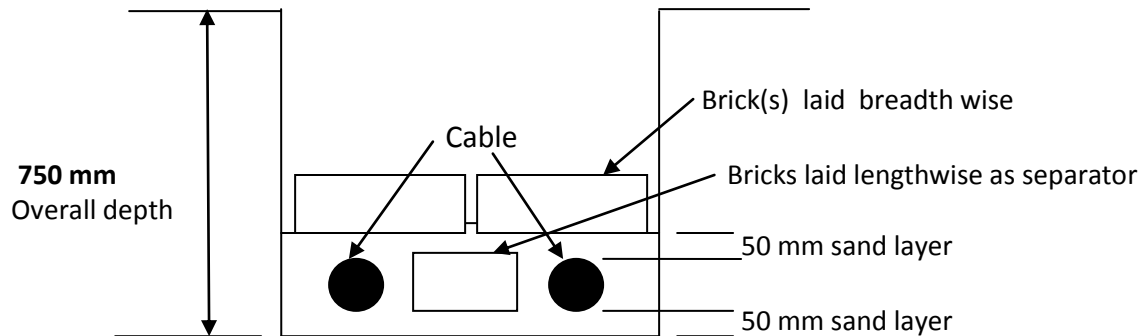


For ONE run of cable : The **trench should be excavated** to a depth, such that the cable will be laid at a **minimum depth of 750 mm** as shown above. Spread 50 mm deep layer of sand below the cable in trench, after laid the cable, also spread 50 mm deep layer of sand above the cable. Lay good quality bricks **breadth wise** only and cover the sand layer all along the cable / trench. Then complete the earth filling. The bricks shall be of good quality with size 100 mm x 75 mm x 225 mm.

If MORE than ONE cable :

B

For LOW TENSION cables DOUBLE run (or) more the cables shall be laid as shown below:

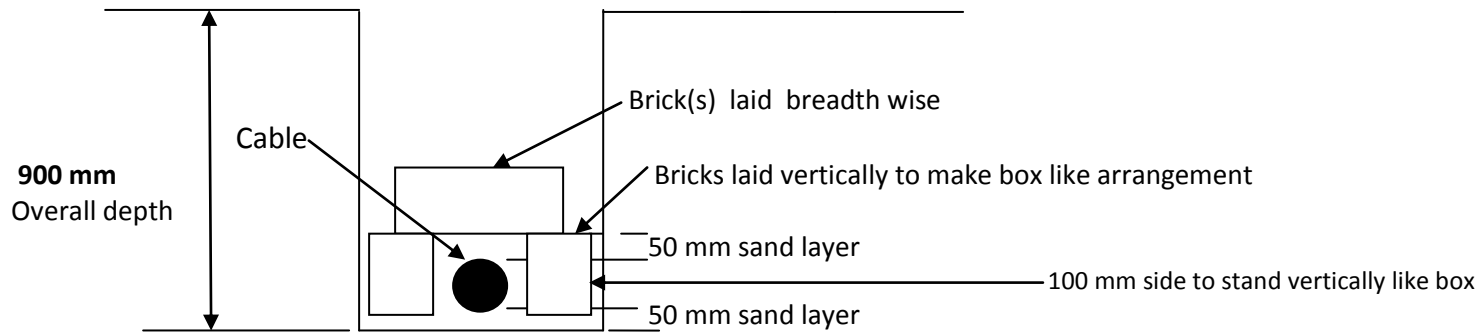


The cables should be laid in horizontal plane. The **trench should be excavated** to a depth and breadth, such that the cables will be laid at a **minimum depth of 750 mm in horizontal plane** as shown above. Spread 50 mm deep layer of sand below the cables. Lay the cables in horizontal plane & place **good quality bricks** in between **them length wise continuously all along the cable / trench**. Further sand filling to be done for 50 mm over the cables.

Lay **good quality bricks breadth wise only** and cover the sand layer all along the cable / trench. Then complete the earth filling. The bricks shall be of good quality with size 100 mm x 75 mm x 225 mm.

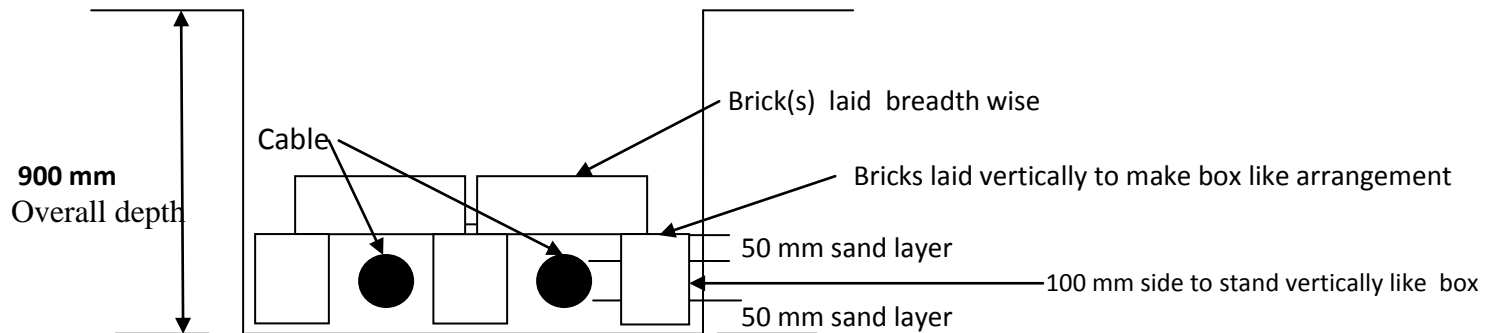
13 For **HIGH TENSION / 11 KV** cable the **trench should be excavated to a depth**, such that the cable will be laid at **minimum depth of 900 mm**. Spread 50 mm deep layer of sand below the cable in trench. After laid the cable, lay good quality bricks length wise and vertically sideways to make box like arrangement covering both sides of the cable as shown below. Spread 50 mm deep layer of sand above the cable. Lay good quality bricks **breadth wise** only and cover the sand and brick layer all along the cable / trench. Then complete the earth filling. The bricks shall be of good quality with size 100 mm x 75 mm x 225 mm.

A For HIGH TENSION cable SINGLE run



For HIGH TENSION cables DOUBLE run (or) more the cables shall be laid as shown below:

B



14 In case where cables have to be taken across the road, the pipes have to be laid across the road & the pipes will be supplied by BHEL. However if pipes are already available across the road, the cables have to be taken through that available pipes.

Cable 'Route Indicator' / 'Joint indicator' should be provided once in 20 Metre.

Cable 'Route Indicator' / 'Joint indicator' has to be supplied by the contractor.

In case of cable laying in open trench / wall / column, the cable has to be taken with proper clamping in cable trench / wall / column. The clamps are to be supplied by the contractor.

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End termination of the cable is inclusive of supply and using of Pin / Eye type, Aluminium / Copper sockets, Glands, MS adopter boxes, Earthing of Glands & adopter boxes with 8 SWG (or) 7/20 GI wire.

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PANELS:

Cubicle / Industrial type panel boards should be manufactured by any of the reputed manufacturers who have sufficient experience in the manufacturing of Electrical panel boards.

All sheet steel used in the manufacture of Main Panel boards should not be less than 2 mm thick Ms sheet metal. The Main Panel board has to be approved by BHEL before dispatch to the work spot.

For all sheet metal fabrication, pre treatment of all metal with acid and rust preventing chemicals has to be carried. Two coats of red oxide and one coat of recommended color paint has to be applied by spray painting.
