

**TECHNICAL SPECIFICATION FOR
AIR CONDITIONING SYSTEM**

1.00.0 GENERAL

1.01.00 This specification covers supply, installation, testing and commissioning and handing over to KPTCL of Air conditioning system for relay room, monitoring room & Stores room of mandatory spares of GIS.

Air conditioning units for GIS building shall be set to maintain the following inside conditions.

DBT $24.4^{\circ}\text{C} \pm 2^{\circ}\text{C}$

1.02.00 The following rooms shall be air conditioned.

- i) Relay Room
- ii) Monitoring Room
- iii) Stores room of Mandatory spares of GIS.

1.03.00 Air conditioning requirement of rooms indicated at clause no.1.02.00 shall be met using split AC units. High wall type split AC units of 2TR capacity each with high wall type indoor evaporator unit shall be used for all rooms.

1.04.00 Scope

The scope of the equipment to be furnished and services to be provided under the contract are outlined hereinafter and the same is to be read in conjunction with the provision contained in other sections/ clauses. The scope of the work under the contract shall be deemed to include all such items, which although are not specifically mentioned in the bid documents and/or in Bidder's proposal, but are required to make the equipment/system complete for its safe, efficient, reliable and trouble free operation.

1.04.01. The AC sizing Calculations shall be furnished for each room based on heat load calculation. The number of AC units required for each room shall be finalized based on sizing calculation. Additional 20% spare AC units shall be provided for each room as a stand by (not less than 1Unit). High wall type split AC units of 2TR capacity each complete with air cooled outdoor condensing unit having hermetically sealed compressor and high wall type indoor evaporator unit with cordless remote controller.

1.04.02 Copper refrigerant piping complete with insulation between the indoor and remote outdoor condensers as required.

1.04.03 PVC drain piping from the indoor units upto the nearest drain point.

1.04.04 Power and control cabling between the indoor unit and outdoor unit and earthing.

1.04.05 MS Brackets for outdoor condensing units, condensers as required.

- 2.00.00 **Specification for Split AC units.**
- 2.01.00 The split AC units will be complete with indoor evaporator unit, outdoor condensing units and cordless remote control units.
- 2.02.00 Outdoor unit shall comprise of hermetically sealed reciprocating/ rotary compressors mounted on vibration isolators, propeller type axial flow fans and copper tube aluminium finned coils all assembled in a sheet metal casing. The casing and the total unit shall be properly treated and shall be weatherproof type. They shall be compact in size and shall have horizontal discharge of air.
- 2.03.00 The indoor units shall be high wall type. The indoor unit shall be compact and shall have elegant appearance. They shall have low noise centrifugal blowers driven by special motors and copper tube aluminium finned cooling coils. Removable and washable polypropylene filters shall be provided. They shall be complete with multi function cordless remote control unit with special features like programmable timer, sleep mode and soft dry mode etc.
- 2.04.00 The Split AC units shall be preferably. of Carrier, Voltas, Blue Star, Hitachi, Daikin, LG, National, O'General or Samsung make.