

Detailed Specifications HW8870008126 (ZETH29316553-EC2):

Following are the details of AC Enclosure for Stator Winding at Block-1, Bay-1, 800 MW to be air-conditioned:

1. Size of the Hall No.-1 (length x width x height) = (20 mtr x 14 mtr x 7 mtr)
2. Size of the Hall No.-2 (length x width x height) = (12 mtr x 14 mtr x 4.5 mtr)
3. Relative Humidity = less than 65 %
4. Required Temperature to be maintained = 21 degree to 25 degree centigrade.

Scheme

Indoor units of Package units will be installed in the plant room.

The conditioned air will be thrown to the specified area by means of GSS ducting & then distributed through grilles. The return air will be taken back thru return directly from air-conditioned area to plant room.

The Air-cooled Condensing units of Package unit shall be placed at rooftop/outside of plant room, where free flow of air is available. The indoor unit (Main Package Unit) & outdoor units (Condensing Unit) shall be connected by means of hard copper refrigerant piping & electrical cabling.

S.NO.	DESCRIPTION OF WORK	QTY	UNIT
	High Side work		
1	Supply, Installation, Testing & Commissioning (SITC) of Microprocessor controlled, Air Cooled Ductable split unit fitted with 02 Nos. of 7.5TR Scroll compressor complete with DX coil, filter and blower section with motor and drive, air cooled condenser, initial charge of gas and oil etc. including winter heating system. Acceptable Make: Voltas/Blue Star/Daikin/Carrier Nominal Capacity : 15.0 TR	5	Nos
S.NO.	DESCRIPTION OF WORK	QTY	UNIT
	Low Side Work		
1	Copper hard drawn refrigerant piping		
	7/8 " dia	80	Rmt
	5/8" dia	80	Rmt
2	DUCTING Supply installation of GSS ducting with necessary support hanger, nut bolts gaskets damper vanes canvass connection etc. as per the following gauge		
	24 Gauge	500	Sqmt
	22 Gauge	80	Sqmt
3	Supplying and fixing of acoustic lining 12 mm thick rigid bonded of 48 kg./cu mtr. fiber glass fixed on the inside of the duct covered with RP tissue paper and covered with 28 G thick perforated aluminium sheet including nut bolts, screws etc.	35	Sqmt
4	Supplying and fixing of fibreglass wool 25mm thick. Cr-150 insulation of 24 kg/Cum covered with Aluminum foil on supply duct at tail end.	600	Sqmt
5	Supply and installation of AL. powder coated individual grills/diffusers for supply & return air.	15	Sq.mt
6	Supply and installation of MS Volume control/duct/coller/unit Damper.	10	Sq.mt
7	Supplying laying of PVC insulated PVC sheathed steel armoured 1.1 KV Grade LTMV Al. Conductor power inclusive of cable trays and end connection 4.0 C X 16 SQMM	75	RMT
8	Supplying installing testing and commissioning of control cable PVC insulated PVC sheathed steel armoured multicore copper conductor for outdoor unit and controlling of following size: 6 Core x 1.5 Sqmm	75	RMT
9	Providing and fixing 8 SWG dia G.I. Wire on surface or in recess for loop earthing as required	150	RMT
10	Supply, installation of cable tray of slotted angle size 40mm X 40mm X14 G width upto 150 mm with necessary support.	70	Rmt

Annexure-“1” (Page-2 of 2)

S.NO.	DESCRIPTION OF WORK	QTY	UNIT
11	Design, fabrication, supply and installation of suitable Main panel for Package unit with all metering (Voltage & Current at each phase through selector switch), indicators & suitable MCCB in outgoing for package unit. Also On/Off system along with metering(Current) & indicators should be provide for Heating in Main Panel after MCCB(interlocking with blower)	5	Nos.
12	Fabrication and installation of MS Stand for condenser	10	Nos.

SPECIAL TERMS AND CONDITION

1. Design of AC Duct for AC Enclosure of Stator Winding at Bl.-1, Bay-1, 800 MW (Size of Hall-1 is 20.0M X 14.0M X 7.0M and Hall-2 is 12.0M X 14.0M X 4.5M) shall be done by the Supplier.

2. Civil foundation for mounting package units in the plant room shall be done by BHEL and MS frame for outdoor condenser units shall be fabricated by the Supplier.

3. Party should supply scroll compressor Rota Lock type for both suction and discharge lines in Package unit.

4. Only Main Power supply Switch (250A SFU – 2 Nos. for 5 units) in the AC plant room along with earth strip shall be arranged by BHEL. Cable and terminals from these switches to different control panels of each indoor units and from outgoing of each panels to incomer of each indoor units shall be arranged by the Supplier.

5. After placement of Order, the Supplier should immediately visit the site and submit the detailed layout drawing for erection of equipment inside the AC PLANT ROOM giving detail drawings of foundation of package unit, condenser unit, location of electrical control panel and Complete ducting layout, refrigerant piping route, power and control cable with in a week time.

6. In all the supplied electrical panels the contactors, relays, switch, push button, power and control fuse should be of L&T/SIMENS make only

All indicating lamps shall have LED lamps only.

All MCCBs shall be of MDS /L&T/ Havells make only.

7. All electrical motors, package units should be provided with double earthing using 8 SWG wire shall be done by the Supplier.

8. Fixing of supply grills, return air grills and fresh air grills is the responsibility of supplier, it include supply of wooden frames/MS frames in the walls to enable installation of the grill.

9. The Supplier should supply all the quantity mentioned in Annexure-“1” and witnessed by the Site Incharge after receipt of material at the site. If the quantity supplied is lower than the quantity mentioned in Annexure-“1”, then the payment shall be made only of the quantity supplied/received at site as per actuals.

10. If the quantity of any item is required beyond the offered quantity (mentioned in Annexure-“1”) to complete the project, then supplier should arrange the excess quantity themselves at their cost.

11. Five sets of operational manual along with trouble shooting instruction, power and electrical control schemes, refrigeration circuit shall be submitted by the Supplier prior to commissioning. The control wiring scheme shall be properly numbered for proper identification for ease in fault tracing/maintenance.