

Air Conditioning of Recreation Club at Perorkada Factory, Trivandrum

Item	Description of items	Unit	Qty	Rate (Rs.)	Amount(Rs.)
				(in Figures & Words)	(in Figures & Words)
PART A	MACHINERY				
1	Supply, intallation, testing and commissioning (SITC) of 11 TR capacity aircooled Ductable split air conditioner with scroll compressor, Ceiling Suspended Indoor Units (IDU) and all standard fittings, IDU SS drain pan, as per specifications complete with suitable capacity drive motor, air cooled condenser with all accessories, hermetically sealed multiple scroll compressors, electronic microprocessor pendant controller with digital display, first charge R 22 refrigerant gas, vibration isolator pads and saftey devices like thermal protector, pressure relief valve, over load relays single phase preventor, high-low pressure cut out, suitable for three phase 440V supply.	Each	3		
2	Supply, installation, testing and commissioning of suitable hard drawn copper refrigerant piping for 11TR machine with 13 mm nitrile rubber insulation interconnecting the condensing unit to evaporating unit for packaged units as per site condition (in case of multiple compressor machine, unit length will be 1m of multiple pipes as required) .	RM	52		
3	Supply, intallation, testing and commissioning (SITC) of 17 TR capacity aircooled Ductable split air conditioner with scroll compressor, Ceiling Suspended Indoor Units (IDU) and all standard fittings, IDU SS drain pan, as per specifications complete with suitable capacity drive motor, air cooled condenser with all accessories, hermetically sealed scroll compressor, electronic microprocessor pendant controller with digital display, first charge R 22 refrigerant gas, vibration isolator pads and saftey devices like thermal protector, pressure relief valve, over load relays single phase preventor, high-low pressure cut out, suitable for three phase 440V supply.	Each	2		
4	Supply, installation, testing and commissioning of suitable hard drawn copper refrigerant piping for 17TR machine with 13 mm nitrile rubber insulation interconnecting the condensing unit to evaporating unit for packaged units as per site condition (in case of multiple compressor machine, unit length will be 1m of multiple pipes as required) .	RM	33		

Item	Description of items	Unit	Qty	Rate (Rs.)	Amount(Rs.)
				(in Figures & Words)	(in Figures & Words)
5	Supply, Laying and Fixing of 4C 4Sq.mm size 1.1 KV grade XLPE insulated, PVC sheathed, armoured Aluminium conductor cable conforming to IS 7098 (Part 1) amended upto date with brass compression glands on surface/ cable tray/ wall / build in trench etc as required from the Indoor to outdoor units of all units for control wiring.	RM	20		
6	Supply, installation, testing and commissioning PVC drain pipe of 25mm dia ISI marked, connecting the drain lines from the indoor units to floor sump, with 9mm nitrile rubber insulation as per specification	RM	20		
TOTAL - PART A					
PART B	AIR DISTRIBUTION				
7	Supply, installation, testing and commissioning of factory fabricated rectangular GSS sheet metal ducting for Supply/return/fresh air duct/collar connecting to indoor unit as per ducting specifications and with suitable supports using MS angles, channels, rods, anchor bolts, etc to roof /truss as per IS 655 and as per specifications.				
7.1	20 G	SQM	2		
7.2	22 G	SQM	32		
7.3	24 G	SQM	246		

Item	Description of items	Unit	Qty	Rate (Rs.)	Amount(Rs.)
				(in Figures & Words)	(in Figures & Words)
8	SITC of External thermal insulation on supply air ducts using min 12mm thick nitrile rubber class "O" closed cell type with antimicrobial protection as per specifications.	SQM	236		
9	Supply, installation, testing and commissioning of Acoustic duct lining using 10mm nitrile rubber insulation open cell type inside the ducts, with necessary adhesive, fixtures at the outlets of all indoor units upto 4m distance from fan outlet as per spec provided.	SQM	52		
10	Supply, installation and comissioning of underdeck insulation with 20 mm thick closed cell elastomeric Nitrile Rubber density of 40kg/m3 on ceiling with necessary adhesive, fixtures supports etc.	SQM	290		
11	Supply, fabrication, installation, testing of flexible connections made out of fire resistant flexible double canvas sleeve.	Set	5		
12	Supply, installation, testing and comissioning of Powder coated extruded aluminium Continuous grilles 16mm frame, 15deg deflection for supply / return air 150mm wide as per spec	SQM	8		
13	SITC of Powder coated extruded aluminium supply air diffusers 4 way both side coated with collar damper aluminium extruded black anodized . (300mmX300mm/600mmx600mm)	SQM	4		
14	SITC of Powder coated extruded aluminium return air diffusers 4 way both side coated without VCD.(300mmX300mm/600mmx600mm)	SQM	4		
15	SITC of Fire Control Damper made of 16G GSS sheet blade and frame with 165mm casing, heavy duty interlocking blades and fully enclosed blade linkage mechanism, SS lateral seal blade seals, self lubricating sintered bronze bushes, fire rating as per UL555-1995 tested as per BS-476 part 20 with 18G extended sleeve 450mm and with fusible link, spring mechanism control panel temp sensor, smoke sensor, limit switch with lever for auto shut off in case of fire/smoke as per specifications.	SQM	3		

Item	Description of items	Unit	Qty	Rate (Rs.)	Amount(Rs.)
				(in Figures & Words)	(in Figures & Words)
16	SITC of multi blade type volume control dampers made of extruded aluminium for ducts/ collars to be provided with suitable links, levers and quadrants for manual control of volume of air flow and for proper balancing of the air distributions system in main ducts & other area as per specification.	SQM	3		
17	SITC of Fresh air GI louvers of size 300x300 mm with wire mesh and birds screen for IDUs/AHUs as per specifications.	SQM	5		
18	Supply, installation, testing and commissioning of Inline Centrifugal duct fan with dynamically balanced impeller of 700cfm capacity, min 10 mm static , complete with GI box, with single phase direct driven motor with class B, IP44 protection with an internal automatic safety thermal overload protection, dynamically balanced impeller of following capacity, with an operating sound level of less than 55dB at 3 m distance.	Each	3		
	TOTAL - PART B				
	GRAND TOTAL (PART -A + PART - B)				