

Schedule of Work

Name of Work: RMO Lift, HVAC, DG Sets, EI, Fire-Fighting & Fire Alarm System, Fountain Pumps, Sub-Station Equipments & CCTV System at National Museum, Janpath, New Delhi during 2026-27 [SH: Providing VRV System at Admin Hall in NM]

Sl. No.	Description	Qty.	Unit	Rate	Amount
1	Wiring for circuit/ submain wiring along with earth wire with the following sizes of FRLS/HFFR PVC insulated copper conductor, single core cable in surface/ recessed steel conduit as required.				
1.1	2 X 4 sq. mm + 1 X 4 sq. mm earth wire	200	Mtr.	476.00	95,200.00
2	Supplying & fixing suitable size GI box with modular plate and cover in front on surface or in recess including providing and fixing 25 A modular socket outlet and 25 A modular SP MCB, "C" curve including connections, painting etc. as required.	8	Each	807.00	6,456.00
3	Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)				
3.1	12 way , Double door	1	Each	2,871.00	2,871.00
4	Supplying and fixing 5 A to 32 A rating, 240/415 V, 10 kA, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
4.1	Single pole	10	Each	285.00	2,850.00
4.2	Single pole and neutral	1	Each	643.00	643.00
5	Supplying, Installation, Testing & Commissioning of Modular type Variable Refrigerant Flow/Variable Refrigerant Volume air cooled Outdoor units suitable for cooling/heating having 100% hermetically sealed inverter type twin Rotary/Scroll Compressor(s), minimum two compressors (with individual separate PCB) for above 14HP modules, microprocessor based Controller, top discharge type condensing unit(s), with R-410- A Refrigerant or equivalent, vibration Isolators with suitable foundation etc. complete as required. To have better efficiency condenser fan shall be capable to operate at different speed with respect to load. The unit shall deliver the rated capacity and in confirmation as per IS 18728:2024 and CPWD Specifications and work even at 50°C ambient temperature without tripping. The system shall be able to deliver 100% of the rated capacity upto 39 OC. The unit shall be suitable to work on 400V +/- 10%, 3 Phase, 50Hz AC power supply and BMS compatible. The unit shall be filled with first charge of the refrigerant and ready for use as required. The condenser should be coated with a hydrophilic film to prevent water accumulation on the surface of the heat exchanger, enhance water dispersion, and reduce the risk of degradation, thereby improving overall performance and durability. The Indian Seasonal Energy Efficiency Ratio (ISEER) of the unit shall be as per Energy Conservation and Sustainable Building Code (ECSBC) 2024 as below and complete as per CPWD specification, connections, inter connections etc. as required. (For capacity <40 kW ISEER 5.4, Capacity > 40 and <70 ISEER 5.5, Capacity > 70 ISEER 5.6 for ECSBC Building) For Cooling or Heating or Both				
5.1	10 HP to 12 HP	24	Per Hp	20,083.00	4,81,992.00

Sl. No.	Description	Qty.	Unit	Rate	Amount
6	Supplying, Installation, Testing and Commissioning of following minimum capacity High wall type Indoor unit equipped with and comfort washable synthetic media prefilter, fan section with low noise fan/dynamically balanced blower, multispeed motor, coil section with DX copper coil, electronic expansion valve, outer cabinet, cord less remote control, drain pan, necessary accessories etc., suitable for operation on 230 V $\pm$ 10%, 50 Hz, single phase AC supply, complete as required. The Indoor units must shut down upon receiving a signal from the BMS System/Fire Signals. The system shall be capable to adjust air flow as per room requirement automatically. The cooling capacity of indoor unit will be at air inlet conditions of 27 C DB and 19 C WB temperature. (Make will be same as of Outdoor)				
6.1	2 TR	2	Nos.	22,674.00	45,348.00
7	Supplying, Installation, Testing and Commissioning of following minimum capacity 4 way Cassette Type Indoor ceiling mounted unit equipped with synthetic washable media pre-filter, fan section with low noise fan/dynamically balanced blower, multispeed motor, coil section with DX Copper coil, electronic expansion valve, outer cabinet, drain pump, grill, necessary supports, vibration Isolation, Corded remote control etc., suitable for operation on single phase 230 V $\pm$ 10%, 50Hz AC supply, complete, as required. The Indoor units must shut down upon receiving a signal from the BMS System/Fire Signals. The system shall be capable to adjust air flow as per room requirement in auto mode. The cooling capacity of indoor unit will be at air inlet conditions of 27 C DB and 19 C WB temperature. (Make will be same as of Outdoor)				
7.1	2.6 TR	6	Nos.	40,814.00	2,44,884.00
8	Supplying, Installation, Testing and Commissioning of Y/T/ Multi Joints. Joints shall be of same Original Equipment Manufacturer (OEM) make as of ODUs and IDUs				
8.1	Indoor Units	6	Nos	4,535.00	27,210.00
9	Supply, Installation, testing and commissioning including vaccumiazation and Nitrogen testing of following nominal sizes of soft/hard drawn copper refrigerant piping for VRV/VRF system, complete with fittings, with suitable adjustable ring type hanger supports, jointing/brazing including accessories, insulated with XPLE Class-O tubular insulation/with Class-O closed cell elastometric nitrile rubber tubular sleeves sections of specified thickness as given below for Suction and Liquid lines, all accessories as per specifications etc. as required :				
9.1	6.4 mm dia (OD) (Soft drawn) with tube thickness 1.2 mm	25	Mtr.	256.00	6,400.00
9.2	9.5 mm dia (OD) (Soft drawn) with tube thickness 1.2 mm	25	Mtr.	346.00	8,650.00
9.3	12.7 mm dia (OD) (Soft drawn) with tube thickness 1.2 mm	25	Mtr.	487.00	12,175.00
9.4	15.86 mm dia (OD) (Soft drawn) with tube thickness 1.2 mm	25	Mtr.	615.00	15,375.00
9.5	19 mm dia (OD) (Hard drawn) with tube thickness 1.2 mm	25	Mtr.	739.00	18,475.00
9.6	22.2 mm dia (OD) (Hard drawn) with tube thickness 1.2 mm	25	Mtr.	904.00	22,600.00
10	Supplying & laying of following sizes PVC insulated & PVC sheathed / XLPE insulated Aluminium conductor Armoured cable suitable for rated voltage 1.1 KV grade as amended upto date (ISI marked) on wall/surface/cable tray/DWC Pipe etc complete as required.				
10.1	3½ X 35 sq. mm (32mm)	4	Nos.	437.00	1,748.00
11	Supplying and fixing 30 A, 415 V, TPN Industrial type socket outlet, with 4 pole and earth, metal enclosed plug top along with 30 A "C" curve, TPMCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required.	2	Nos.	4,358.00	8,716.00

Sl. No.	Description	Qty.	Unit	Rate	Amount
12	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray (Galvanisation thickness not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with two numbers GI Suspenders i/c base of suitable size GI angle, GI bolts & nuts, fastner etc as required.				
12.1	150 mm width X 50 mm depth X 1.6 mm thickness	100	Mtr.	803.00	80,300.00
12.2	300 mm width X 50 mm depth X 1.6 mm thickness	100	Mtr.	1,062.00	1,06,200.00
13	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray "bends" (galvanisation not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with two numbers GI Suspenders i/c base of suitable size GI angle, GI bolts & nuts, fastner etc as required.				
13.1	150 mm width X 50 mm depth X 1.6 mm thickness	5	Each	1,368.00	6,840.00
13.2	300 mm width X 50 mm depth X 1.6 mm thickness	5	Each	1,977.00	9,885.00
14	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray "Tee" (galvanisation not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with two numbers GI Suspenders i/c base of suitable size GI angle, GI bolts & nuts, fastner etc as required.				
14.1	150 mm width X 50 mm depth X 1.6 mm thickness	5	Each	1,486.00	7,430.00
14.2	300 mm width X 50 mm depth X 1.6 mm thickness	5	Each	2,294.00	11,470.00
15	Supply Installation Testing and Commissioning Providing and fixing rigid PVC piping complete with fittings, supports as per specifications and duly insulated with 6 mm thick closed cell nitrile rubber insulation.				
15.1	25mm	126	Mtr.	187.00	23,562.00
15.2	32 mm	20	Mtr.	314.00	6,280.00
16	Supply Installation Testing and Commissioning of suitable size (as per OEM) control cum transmission wiring of copper in suitable PVC conduits between indoor and outdoor units size as per OEM recommendation (should be shielded cable in PVC conduits)	345	Mtr.	581.00	2,00,445.00
17	Supplying & laying of following sizes PVC insulated & PVC sheathed / XLPE insulated Aluminium conductor Armoured cable suitable for rated voltage 1.1 KV grade as amended upto date (ISI marked) on wall/surface/cable tray/DWC Pipe etc complete as required.				
17.1	3.5 x 35 Sq.mm	100	Mtr.	706.00	70,600.00
18	Supplying Installation Testing and Commissioning of main Centralized controller as per specification to hook up indoor units as mentioned above. Controller shall however be suitable for minimum 120 groups of indoor units. Centralized controller shall act master controller for controlling of heating cooling mode of outdoor units as their associated indoor units etc. as required.	1	Nos.	1,19,733.00	1,19,733.00
	Total				16,44,338.00

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