

# राष्ट्रीय पादप जीनोम अनुसंधान संस्थान

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फ़ाइल संख्या: NIPGR/Engg./5/5/2016-17/

दिनांक: 05.05.2017

## **ADDENDUM / CORRIGENDUM**

**SUB.:** S.I.T.C. of 3 nos. of 1.5 TR Split AC in TC – 4A at NIPGR Campus, New Delhi.

The tender invited vide Tender Id No. 2017\_MST\_206469\_1 dated 13.04.2017 has following amendments:-

**“The Schedule of Quantity for subject work has been amended and revised Schedule of Quantity is attached.”**

All those agencies who fulfill the pre-qualification criteria & meet the specifications of tender may quote the tender.

All other conditions remain unaltered.

सलाहकार अभियंता

## SCHEDULE OF QUANTITY

**Sub: SITC of 3 nos. of 1.5TR Split Ac in TC 4A at NIPGR Campus New Delhi**

S.N	Description of Product	Unit	Qty	Rate	Amount
1.	<b>SPLIT TYPE AIR CONDITIONER</b> <b>Make: VOLTAS/BLUESTAR/LG/CARRIER</b> <b>Specifications:</b> S.I.T.C. of HI-wall Split AC Units capacity 1.5 TR (Nominal) with minimum 5000 watt fitted with Hermitically sealed Rotary compressor with all accessories i/c refrigerant gas (R-22/R-410), copper tubes and cable etc. complete for operating on 230 volts, 50Hz, single phase AC supply BEE Star rating 5 star complete with cordless remote control etc. complete as reqd.	Nos	3		
2.	<b>COPPER PIPING FOR SPLIT AC</b> <b>Make: MET TUBE/SUPERLON</b> <b>Specifications:</b> Supply and fixing of copper refrigerant pipes of suitable size (suction as well as discharge pipe duly insulated with nitrile rubber having thickness of insulation 9mm on recess/surface etc. complete as required.	Mtrs.	25		
3.	<b>DRAIN PIPE FOR SPLIT AC</b> <b>Specifications:</b> Supply and fixing of 25 mm dia (OD) drain pipe for AC condensation water drain complete with tee , elbow, socket, jointing etc. as reqd.	Mtrs	15		
4.	<b>CABLING FOR SPLIT AC</b> <b>Make:FINOLEX/HAVELLS/POLYCAB</b> <b>Specifications:</b> Supply and fixing of following size PVC insulated PVC sheathed copper conductor cable ISI marked of copper conductor 2.5 Sq.mm 3core on surface/recess complete as reqd.	Mtrs.	35		
5.	<b>ROOM TEMPERATURE CONTROLLER</b> <b>Specifications:</b> Supply and fixing of Real time microprocessor based user programmable Controller i/c four digit LED display for displaying measured values and Feather touch operation., Platinum sensor probe Pt- 100 (class A, SI sensor, cable 5 m, max var $\pm 0.20^{\circ}$ C, resistance standard 100 ohms, self heating error in 0 c/mW. 0.6 in flowing air V-1 m/s and 0.24 in still air, Response time in moving air 50 % response in 6 sec. And 80 % response in 5 sec, Sensor failure indication Display 6.resolution 0.1°.Accuracy $\pm 0.1^{\circ}$ C. Automatic hysteresis co7.ntrol. 4 Independent powered out put. One Heater and One Air c8.onditioner auto selectable. Temperature Range - 0 Deg. to 750 9.Deg. C. Input- 200-240 VAC, 50 Hz. Single phases. , Ambient 5°-50°C, RH upto 90%. Along with Switching Unit.	Nos.	1		



6.	<b>MICROCLIMATIC HUMIDITY CONTROLLER</b> <b>Specifications:</b> Supply and installation of Real Time microprocessor based. On/Off control for Humidifying/ Dehumidifying. Hysteresis / Differential 1% - 9%. Direct / Reverse selectable Lock functions to prevent miss operating. Feathers touch operation. <b>Sensor:-</b> Fast response sensor – line resistance < 10Ω Display Accuracy- indicating value ±0.2% ±1digit. <b>Input-</b> 200-240 VAC, 50 Hz. Single phase. , Ambient 5°-50°C, RH upto 90%.	Nos.	1		
7.	<b>SEQUENTIAL TIMER</b> <b>Specifications:</b> Supply and installation of Sequential Timer It operates two air conditioners each alternately directly from the powered output. Technical Specifications: -Minimum ON/OFF time 15 / 30 minutes. NICAD battery backup upto 90 Min. auto recharging facility. Powered output can drive Two 1.5/2 Ton Air conditioner Alternately Auto – Manual Selector switch. Accuracy ±8 sec/day. Input 200 V to 240 V.A.C, Phase-Single, 50 Hz. Ambient 5°C to 50°C, and RH upto 95%	Nos.	1		
8.	<b>HUMIDIFIER</b> <b>Specifications:</b> Supply and installation Suitable floor mounting humidification system to maintain more than 90% RH at all specified temperatures at any point in the room. Humidification system may be of Pan-type humidifier with Electronic RH sensor or Ultrasonic Humidifier with Electronic RH sensor or Ultrasonic Humidifier with dehumidification via independent dehumidifying coil with reheat heaters or any other equivalent system which should maintain more than 90% RH at all specified temperatures at any point in the room. (Note: Reservoir for continuous supply of de-mineralized water to the humidification system along with suitable water demineralization system shall be provided by the department).	Nos	2		
9.	<b>PHOTOPERIODIC TIMER</b> <b>Specifications:</b> Supply and installation of Switches ON/OFF lights at the time set by user, despite power failures. Being digital, there are less moving parts, hence more reliable. Special feature. Technical: Photoperiodic repeat cycle 24 hrs minimum ON/OFF period 30 minutes. Backup auto recharging NICAD. Powered output directly drives upto 100 tube lights 40W each. Thermal safety with 15A cutout. Accuracy ±10 sec/day. Input: 200-240 VAC. Phase-singles. Ambient: 5° to 45°C, RH upto 85% normally. Weight 2Kg.		1		



10.	<b>LIGHTING SYSTEM (IF REQUIRED)</b> <b>Make:PHILLIPS/HAVELLS</b> <b>Specifications:</b> Supply and installation of 400W lamp should be resistant to high relative humidity (more than 90%). Lamps should be Sodium, fluorescent tubes or bulbs or LED, which gives balanced spectrum for plant growth well connected with Temperature Controller, Sequential Timer and Photoperiodic Controller; Enclosed in frame of mild sheet structured powder coated and subsequently painted with anticorrosive humidity resistant treatment or as per standard specification for quality grade	Nos	6		
11.	<b>SWITCHING UNIT</b> <b>Specifications:</b> Supply and installation of Switching unit for Air Conditioner, capable of functioning between at least 5 - 45°C and at up to 85% RH	Nos.	1		
12.	<b>AUTOMATIC VOLTAGE STABLIZER</b> <b>Make: V-GUARD/BLUE BIRD</b> <b>Specifications:</b> Supply and installation of voltage stabilizer capacity 4KVA ,Input Voltage : 190 –260 Volt Output Voltage : 220Volt ± 10% Frequency : 50 Hz Mode of Operation Auto/Manual Selectable Duty Cycle : Continuous on full load	Nos.	3		
13..	<b>MS-ANGLE IRON STAND FOR AC</b> <b>Specifications:</b> Supply and installation of prefabricated wall /floor mounted stand as per site requirement for outdoor unit of 1.5 TR capacity split AC duly powder coated i/x cement concrete foundation of suitable strength for placing the outdoor unit.	Nos.	3		
14.	<b>POINT WIRING (IF REQUIRED)</b> <b>Specifications:</b> Supply and installation Wiring for the 400w lamp/air conditioner/humidifier/temperature controller/timer etc. with 1.5 sq.mm. PVC insulated copper conductor FRLS wires in proposed concealed / exposed PVC Conduit for 250 Volts applications including providing Wiring within the fixture and for connection to the branch circuit. Insulation of the wire shall suite the temperature conditions inside the fixtures. Points for AC/Humidifier/400w lamps should be controlled by MCB of appropriate capacity in DB/PANEL.	JOB	1		
15.	<b>CIVIL WORK(IF REQUIRED)</b> <b>Specifications</b> civil work for refinishing of surface on ceiling with 10mm thick plaster of Paris (anhydrous gypsum) ceiling at all floor levels as per design. Frame work with India Gypsum or equivalent G.I. Channels 50x12 mm main member & 25x12 mm cross member. Rabbit wire mesh fixed to be fixed over this frame including cost of fasteners / hangers etc. all complete as directed.	JOB	1		
<b>TOTAL Rs.</b>					

Seal and Signature of Contractor

Consultant Engineer