



BHARAT HEAVY ELECTRICAL LIMITED

UNIT'S ADDRESS: PIPLANI, BHOPAL (M.P.)

Contact Person's Name/Design /Phone No./E-Mail (From Purchase Deptt.)

Enquiry No.:

Due Date:

Supplier Qtn. No.:

Date:

Specification Cum Compliance Certificate of Air Conditioning System for Enclosure containing CNC-controlled Gear Measuring M/c of TGM div.

Note:-

- Vendor must submit complete information against clause no. 20 (Qualifying Condition). The offer meeting this clause would only be processed.
- The "Offered" Column and where applicable, the "Deviations" & "Remarks" Column of this format shall be filled in by the Vendor and submitted along with the offer. Inadequate / incomplete, ambiguous, or unsustainable information against any of the clauses of the specifications/requirements shall be treated as non-compliance. Additional information due to space constraints can be provided in separate annexure, duly signed. Subsequent cross-reference must be provided in this original certificate.
- The offer and all documents enclosed with offer should be in English language only.

Name & Address of the Supplier:

Name & Address of the Indian Agent:

Telephone Nos.:

Telephone Nos.:

Fax Nos.:

Fax Nos.:

E-Mail Address:

E-Mail Address:

Scope: Engineering, Design, Supply, Erection & Commissioning of AC-system for Enclosure containing CNC-controlled Gear Measuring Machine located at Tool & Gauge Block, which must comply with the Specifications as given below:

Sl. No.	Description for BHEL Requirement	Specified / To be Confirmed By Bidder	Offered	Deviations	Remarks
1.00	General				
1.01	Bharat Heavy Electricals Limited, Bhopal is in the process of air-conditioning the Enclosure containing 1 no. CNC-controlled Gear Measuring Machine with necessary Power Supply, Controller, Rotary Table, etc. located at Tool & Gauge Block, inside BHEL, Bhopal. Vendor have to give suitable offer for air-cooled, energy-efficient, precision AC system on TURNKEY Basis.	Vendor have to Confirm			
1.02	The basic purpose of this AC system is to maintain the inside Enclosure temperature & humidity as per desired parameters. Also, consideration is to be taken for inside sound level in-addition to air-flow & cleanliness.	Vendor have to Confirm			
1.03	Bidder have to give BOQ with detail spec. & makes enclosed with necessary technical details/ catalogues/ literatures in their 'Technical Bid' for technical scrutiny in addition to confirmations/ deviations with the following Technical Specification.	Vendor to Specify			

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2.00	Scope of Work				
2.01	The Scope of Work shall include engineering, designing, supplying, installing, testing, commissioning, and proving of air conditioning system as described in the Technical Specifications. The contractor shall carry out and complete in every respect all work under this contract in conformity with the contract documents and to the entire satisfaction of the Owner & hand-over the AC system to BHEL, Bhopal with required inside condition, as given in clause no. 3.	Vendor to Specify			
2.02	All items of work shall be executed strictly to fulfill the requirements laid down under the Basis of Design. The type of equipment, material specifications, method of installation and testing and type of controls shall be in accordance with the approved shop drawings and the relevant Indian Standards.	Vendor to Specify			
2.03	The Scope of Work shall include all materials, labour, equipment, appliances and incidental work, whether specifically mentioned or not, but are necessary and customary to make a complete installation. It shall include all fittings, accessories, hardware, foundation bolts, terminal lugs, cable glands, junction boxes and other items, whether specifically mentioned or not, but are useful and necessary for proper and efficient working of the equipment.	Vendor to Specify			
2.04	Bidder have to submit detail bill of material with detail specification & alternative makes, proposed system configuration, technical literature/ catalogues of OEM, etc. in their technical bid for technical scrutiny.	Vendor to Specify			
2.05	Bidder have to supply 1 no. PACU with all necessary ducting, piping, indoor & outdoor condenser foundations, etc. against this tender-enquiry. However, provision for installation of stand-by PACU, which will be procured at latter stage needs to be accommodated in the Duct-system directly. No additional material will be procured with the stand-by PACU.	Vendor to Specify			
2.06	The complete work of the above AC system must be carried-out by the bidder on TURNKEY BASIS. Complete Erection & Commissioning of the system at BHEL site will be in supplier's scope. All the responsibility of the above work will be at single point of the bidder/ supplier.	Vendor have to Confirm			
3.00	Basis of Design				
3.01	Dimension of Hall to be air-conditioned: 11 mtr. x 8 mtr. x 7 mtr. Height. For layout of the Hall, glass-surface area, orientation, etc. bidders are requested to visit the site & refer the enclosed drawing.	Vendor to Specify			
3.02	Outside conditions during:	Vendor have to Confirm			
3.02.01	Summer:				
3.02.02	Winter:				
3.02.03	Monsoon:				

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3.03	Inside conditions required in enclosed Hall:	Vendor have to Confirm			
3.03.01	Temperature:				
3.03.01.01	Temperature Gradients:				
a)	Per Meter = 1 deg. K/m				
b)	Per Hour = 1 deg. K/hr				
c)	Per Day = 1 deg. K/d				
3.03.02	Relative Humidity:	-do-			
3.04	Air-change to be designed:	-do-			
3.05	Sound Level:	-do-			
3.06	Maximum Heat Load generated Inside:	-do-			
3.07	Maximum Number of Persons Occupying:	-do-			
3.08	Lighting load:	-do-			
3.09	Effective False-ceiling height:	-do-			
3.10	No direct air-flow must be over the M/c foot-print as earmarked in the drwg.				
3.11	Refrigerant Gas: Eco-friendly, Energy-efficient, Non-CFC, preferably R-404A/ R-407C/ R-410A or equivalent.	Vendor to Specify			
4.00	Air Conditioning System				
4.01.01	The air conditioning system will consist of suitable capacity Precision-controlled Package-type AC-system with Scroll Hermetically-sealed Compressors & Air-cooled Condensers.	Vendor to Specify			
4.01.02	AC system must be designed for high sensible heat load, more air per ton, precise humidity control, microprocessor controlled, highly efficient filters, efficient heat transfer, quite operation, corrosion resistant outdoor unit & extended duty range.	Vendor have to Confirm			
4.01.03	Package AC shall be compact, lightweight design completely factory assembled and tested under load conditions before dispatch and shipped with full operating charge of refrigerant and oil.	Vendor have to Confirm			
4.01.04	It shall be complete with microprocessor based control panel containing all necessary operating and safety controls & alarms, indicating lights, starter, internal wiring, etc.	Vendor have to Confirm			
4.01.05	There must be twin Hermetically-sealed Scroll Compressor of Copeland/ Danfoss-Manurop/ Bitzer make. Breakdown in any 1 no. of Compressor, the Unit must switch over to the next Compressor, automatically with fault indication in the Microprocessor-based Panel.	Vendor have to Confirm			
4.01.06	Precision-controlled Package-type AC-system should be of reputed/ standard make (Branded) only like: Emerson/ Uniflare/ Hitachi/ ETA/ Clivet/ Voltas/ Blue Star/ Carrier/ LG or Samsung make.	Vendor have to Confirm			

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4.02	Detail Description of Precision-controlled Package-type AC-system:				
4.02.01	The condenser coil shall be constructed of copper tubes and die formed aluminum fins having self-spacing collars. Fins are to be mechanically bonded to the tubes.	Vendor have to Confirm			
4.02.02	The condenser shall have direct driven, heavy duty, aluminium bladed fans. The fan motors shall be 6 pole, slow speed type with internal overloads and shall be permanently lubricated.	Vendor have to Confirm			
4.02.03	The Outdoor Unit must be operated over varied ambient temperature condition ranging from 7°C to 46°C.	-do-			
4.02.04	There has to be flexibility in installing the PACU, i.e., to have up-flow or down-flow of supply-air path as per the site condition. Basic assembly shall consist of mixing plenum, filter section, coil section, fan section & plenum.	Vendor have to Confirm			
4.02.05	The refrigerant lines shall be of copper/ seamless carbon steel pipes. The liquid refrigerant line shall include shut off valve with charging port, liquid sight glass with moisture indicator, solenoid valve, filter-drier, flash economizer and modulating refrigerant expansion devices.	Vendor have to Confirm			
4.02.06	The cooler & suction line shall be factory insulated with adequate thickness of foam rubber or equivalent insulating material to prevent condensation. The entire suction line & liquid line between the expansion valve and the cooler shall be insulated with flexible closed cell insulation.	Vendor have to Confirm			
4.02.07	The power & control panel of the PACUs shall be pre-assembled, wired and cushion mounted on the unit for utmost reliability and long life. It shall be fabricated from steel and shall have lockable door. It shall have separate compartments for electrical power control and refrigeration control. The power panel shall contain reduced inrush current starter and MCCB for compressor – motor, factory wired with terminal block power connection, primary and secondary fused control power transformer. The control panel shall include high and low pressure cut-outs, suction, discharge and oil pressure gauges, oil safety control, antifreeze protection, indicating lights to locate cause of shutdown, interlocks for inherent motor protection, marked terminal strip and interconnecting control wiring. It shall be possible to start or stop the water chilling unit manually or through an external signal. The equipment manufacturer shall provide all indicating instruments necessary for proper operational control of individual equipment. They shall be mounted on the equipment itself and shall not be measured separately.	Vendor have to Confirm			

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4.02.08	The electrical control panel shall be wired to permit fully automatic operation during initial start-up, normal operation, & shutdown conditions.	-do-			
4.03	Microprocessor based control panel				
4.03.01	The microprocessor based control panel shall be user friendly and display message in simple English language with operator pad offering finger-tip control having function keys for viewing different screens and changing set points. It will monitor various parameters and display them on the back-lit LCD screen for easy viewing during day or night. It shall be password protected to make it totally tamperproof.	Vendor have to Confirm			
4.03.02	The panel shall have a calendar/ clock to program daily start – stop and weekly off. The panel shall log fault shutdowns which shall be stored in memory along with date and time of occurrence, reason for shutdown and important parameters at the time of shutdown.	Vendor have to Confirm			
4.03.03	The panel shall have interface for direct connectivity to a personal computer without any hardware in between or through a modem and ordinary telephone lines so that the AC unit operation can be monitored from any remote place.	Vendor have to Confirm			
4.03.04	<p>The panel shall be capable of displaying at least the following:</p> <ul style="list-style-type: none"> a) Incorrect pass word message b) Day, date and time c) Daily start and stop time d) Holiday status e) Suction, discharge and oil pressures f) Compressor motor current g) Suction pressure cut-out setting h) No cooling load condition i) Anti-recycle timer status for each compressor j) Compressor run status k) Automatic/ manual lead/ lag control l) Compressor starts and total run time m) Fault shutdown conditions 	Vendor have to Confirm			
4.03.05	The operating program shall be stored on non volatile memory to eliminate water chilling unit failure/ battery discharge. The programmed set points shall be retained in lithium battery backed memory.				
4.03.06	Both the Compressors must be equally loaded with automatic run-time monitored by the Microprocessor-based Panel. The run-time of the Compressors can be adjusted & re-settable, as per the requirement.				

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4.04	All rectangular ducts shall be fabricated out of bright galvanized steel sheets with no watermarks. The galvanized steel sheets shall conform to IS 277. The zinc coating shall not be less than 125 gm/ m ² of surface area. The duct fabrication & installation shall conform to IS 655 – 1963 and approved shop drawings.	Vendor have to Confirm			
4.05	All grills shall be of powder coated aluminum construction in rectangular shape & shall have adjustable front louvers to give 0 – 30° vertical deflection. All supply air grills shall be provided with volume control dampers operated from front face by removable keys.	Vendor have to Confirm			
4.06	Thermal Insulation over ducts shall be 25 mm thick cross-linked polyolefin ‘O’ class with thermal conductivity not exceeding 0.029 kcal/ h – cm – °K at 20 °C mean temperature & aluminum-protective foil on one-side & acrylic self-adhesive backing on the side.	Vendor have to Confirm			
4.07	Acoustic Insulation will be carried-out with fibre reinforced tissue paper and finally clad with minimum 28 gauge perforated aluminium sheets having at least 10% perforations.	Vendor have to Confirm			
4.08	Distribution Board shall be free floor standing enclosed cubicle type, fully compartmentalized construction, dust tight, vermin proof and having IP 52 degree of protection as per IS 2147. It shall have a three phase three wire MCCB and a four pole earth leakage circuit breaker as incomer, 1000 A copper bus bars, neutral bars, starters, independent MCB for pumps, blowers, chillers, etc. with indicating lamps, SPP, TDR, interlocking, etc.	Vendor have to Confirm			
4.09	Power Cabling and Wiring shall include cables, wires, cable trays, conduits, glands, sockets and other ancillary materials like lockable nylon cable ties, galvanized iron hardware, spacers and saddles, cable identification tags, end termination, etc. as may be necessary. All cables shall be XLPE insulated 1.1 kV grade armoured overall sheathed copper conductors conforming to IS 7098 (Part I) 1988.	Vendor have to Confirm			
4.10	Bidder have to make provision for installation of stand-by PACU with all necessary ducting, piping, indoor & outdoor condenser foundations, etc. At later stage, only one no. PACU will be procured and placed & installed in similar fashion as the PACU supplied & installed with this tender-enquiry. The common duct-plenum with both PACUs is in the scope of this tender-enquiry. Only, stand-by PACU with canvas-connection will be provided at latter-stage, which needs to be installed with the existing PACU. No additional duct, refrigerant pipes, etc. will be required during installation of stand-by PACU, at latter-stage. All these must be included in this tender-enquiry.				

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5.00	Automatic Air Curtains over the Entrance of the AC Enclosure				
5.01	Custom designed Air-curtains for door-openings of size 3.0 mtr. (width) x 4.0 mtr. (height) – 1 no. is required to install over the External Door of the Enclosure. These machine must use forward-curved blowers, both statically and dynamically balanced, to give it higher performance, and hence enhancing it to act as a barrier to outdoor temperature, humidity, dust and air borne contamination. The machines and parts must be built to last and produce uniform and powerful laminar curtains of air at a very low noise level of 63 decibels on 'A' Scale, measured 1 mtr. from the unit & it must have highest standards of machine performance, consisting of blower-drum, motor, bearings, etc.	Vendor have to Confirm			
5.02	Auto-operation of the air-curtain machines are to be incorporated, so that the moment any moving person(s), equipment, etc. approaches in the range of 0.2 mtr. from the door, the same gets started. Also, it must be switched-off the moment, the item(s) moved-out away from the door.	Vendor have to Confirm			
6.00	Erection & Commissioning				
6.01	The complete job is to be done on TURNKEY BASIS. All tools-tackles, consumables, welding m/c, brazing sets, etc. required for erection are to be arranged by the supplier.	Vendor have to Confirm			
6.02	Supplier have to take full responsibility for carrying out the erection, start up, testing of AC Equipments, it's control system & all types of other supplied equipment. Service requirement like power, air & water shall be provided by BHEL at only one point, which needs to be indicated by supplier in their 'Technical Bid'. Other requirements like crane, sling, chain-pulley block, transporting facility, etc. can be provided by BHEL. Details of these requirements should be informed by vendor in advance.	Vendor to Specify			
6.03	Complete anchoring system including roof-fasteners, anchoring materials, fixtures, clamps, foundation bolts, leveling shoes, vibration-insulators, etc should be supplied by the vendor.	Vendor have to Confirm			
6.04	Bidder have to accommodate the PACU in the earmarked area & the Condensing Unit can be kept over the enclosure ceiling with vibration dampers. The duct must be laid in between the top-ceiling of the enclosure & false-ceiling, considering the roof truss, as per site conditions. The return-air can be taken from the wall of the room having the PACU with necessary aesthetic looking grill. Bidder have to provide necessary drawing for minor civil modification required from BHEL				

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6.05	All tools & tackles & any special tools and equipment required for erection must be brought by the vendor after duly registered in CIFS Gate no. 9 (BHEL Material Gate) for taking them after carrying out the work. However, vendor must supply all necessary tools like Torque Wrench, Spanners, Keys, etc. required compulsory for future operation and maintenance of the AC system. List of such tools should be indicated in the 'Technical Bid' & must be covered in lump-sum cost.	Vendor have to Confirm			
6.06	Commissioning spares, required for commissioning of the machine within stipulated time, shall be brought by the supplier on returnable basis. This is in order to permit the vendor to take back those spares which are not needed after commissioning.	-do-			
6.07	Bidder have to provide Test Report Format, TAB (Testing, Adjusting, Balancing) details, etc. in the 'Technical Bid' for technical scrutiny.				
6.08	<u>Test Reports:</u> The results of the performance tests during summer and monsoon shall be submitted for scrutiny and approval. The test reports shall include record of all safety and automatic control settings for the entire installation.	Vendor have to Confirm			
6.08.01	The contractor shall also submit along with the test reports, the manufacturers' certified performance data/ curves for all equipment highlighting the operational parameters for the project.	Vendor have to Confirm			
6.08.02	Vendor have to bring all measuring instruments like Anemometer, Laser Thermometer, Humidity-meter, U-tube Manometer-gauges, Sound-meter, Multi-meter, Energy-meter, etc. for test witnessing as required in mutually agreed commissioning test procedure. However, this needs to be explicitly defined in the 'Technical Bid'.	Vendor to Specify			
7.00	<u>Site Visit Before Bidding</u> The bidder shall visit site to study the site conditions and availability of resources at site before submitting the bid.	Vendor to Specify			
7.01					
8.00	<u>Performance Guarantee</u> The contractor shall guarantee the performance of all equipment and the efficiency of the air conditioning systems as a whole to achieve the desired results.	Vendor to Specify			
8.01					
9.00	<u>Vibration Isolation and Sound Attenuation</u> The equipment shall operate under all conditions of load without any objectionable vibration and noise. The contractor shall take the necessary precautions for vibration isolation and sound attenuation.	Vendor to Specify			
9.01					
9.02	Outdoor equipment must not generate noise more than 65 dBA in external open areas at a distance of 5 m from building line.	-do-			

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10.00	<u>Shop Drawings Before Installation and As-Built Drawings After Installation</u>	Vendor to Specify			
10.01	<p>The vendor shall prepare and submit for approval his shop drawings based on actual measurement at site. The shop drawings shall broadly cover the following drawings:</p> <p>Equipment Layout giving complete details of all equipment.</p> <p>Duct fabrication, installation and support details.</p> <p>Fixing of VCD, Grills & Diffusers.</p> <p>Chilled Water Pipe Layout showing all sizes and support details.</p> <p>Electrical drawings showing schematic control and power wiring diagrams, cable sizes, switch details, fuse sizes, control components and wiring details.</p> <p>Civil foundation details for all equipment.</p> <p>The contractor shall verify adequacy of sizes of wall openings, clearances, etc. and shall co-ordinate with BHEL for the same. He shall also co-ordinate his layouts with other disciplines of work.</p> <p>After the completion of installation, the contractor shall prepare as-built drawings incorporating all the changes made in locations, routing, dimensions, levels, etc. during execution of the project.</p>				
11.00	<u>Operation and Maintenance Manuals</u>	Vendor to Specify			
11.01	On completion of the work but before handing over the air conditioning system to the Owner, the contractor shall submit three ring-bound documents (in hard copies) in English language of operation and maintenance manual. The manual shall include following:				
11.01.01	A list of all equipment giving full details such as model numbers, part numbers, serial numbers, names and addresses of the manufacturers, etc.				
11.01.02	Price list of all the consumable items & regular replacement parts, mentioning maximum period of operation of the same.				
11.01.03	Start up operation and maintenance instructions for the entire installation including that of AC equipment & Automatic Control system.				
11.01.04	Detailed Maintenance manual of AC equipment with GA & layout drawing of Water/ Refrigerant Pipeline, Indoor/ Outdoor Units, detail drawing of all assemblies/ sub-assemblies/ parts including Electrical/Pneumatic/ Electronic, etc. with Part/ Item number/ list.				
11.01.05	Maintenance, interface & commissioning manuals.				
11.01.06	Step-by-step routine, periodical and breakdown maintenance procedure for all equipment.				
11.01.07	Exploded view of all equipment detailing spare parts.				

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11.01.08 11.01.09	Schematic layout of Electrical Power Cable & Control Wiring with necessary Ferrule numbers. Catalogues, O&M manuals of all brought-out items including drawings, wherever applicable.	Vendor to Specify			
12.00 12.01	<u>Availability of Spares and Services During the Life of the Machines</u> The contractor shall furnish an undertaking that he shall make available all spares, consumables and services required for proper operation and maintenance of the air conditioning systems for a minimum period of 10 years.	Vendor to Specify			
13.00 13.01	<u>On Site Training of BHEL's Personnel</u> On completion of the work but before handing over the air conditioning systems to the Owner, the contractor shall train the Owner's operation and maintenance staff to operate, adjust and maintain all equipment installed.	Vendor to Specify			
13.02 13.02.01 13.02.02	BHEL Persons should be trained at the Manufacturer's Works for satisfactory & effective compliance, if required for mutually agreed period in the area of: To witness efficient & effective operative condition of the AC system, as per the ARI Test Bed. Electrical & Electronic/ Microprocessor Control maintenance of AC equipment.	Vendor have to Confirm			
14.00 14.01	<u>Completion Period</u> The entire work covered under this contract shall be completed within three months from the date of the Letter of Award. If the work is delayed due to any cause over which the contractor has no control, then the Owner may, at the request of the contractor can extend the completion period by a reasonable time.	Vendor to Specify			
15.00 15.01	<u>Warranty</u> The air conditioning system shall carry a warranty/ guarantee for the successful operation of the equipment for a period of 12 months from the date of successful commissioning at BHEL works & handing them over to the Owner against any defective materials, unsuitable product design and bad workmanship. Any shortcomings found during this warranty period shall be made good and defective materials shall be repaired/ replaced at site free of cost. Equipment/ sub-assemblies/ components found defective due to deficiency in design, material or workmanship shall be replaced by new ones and such replacements shall carry the successful operation for further period of 12 months from the date of replacements.	Vendor have to Confirm			

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16.00 16.01	<u>Maintenance During Defects Liability Period</u> The contractor shall receive service calls for any and all problems experienced in the operation of the air conditioning and pressurization during defects liability period, which shall extend to twelve months from the date of handing over the installation to the Owner.	Vendor have to Confirm			
16.02	The contractor shall attend to these calls within 24 hours of receiving the complaints and take immediate steps to correct any deficiencies that may exist.	Vendor have to Confirm			
16.03	All equipment requiring repairs shall be immediately serviced and repaired. The contractor shall supply all replacement parts and labour at his cost.	Vendor have to Confirm			
17.00 17.01	<u>Price</u> The rates quoted shall remain firm and shall not be subjected to escalation.	Vendor have to Confirm			
17.02	The supply rate for each item of work in the Schedule of Quantities shall, unless otherwise expressly stated, include cost of all materials, packing, forwarding, loading, transporting to site, transit insurance and unloading at site.	Vendor to Specify			
17.03	Bidder have to explicitly give rates for the main high-side equipment like PACU & low-side materials & works like duct, insulation, grill, etc.	--do--			
17.04	The labour rate for each item of work in the Schedule of Quantities shall, unless otherwise expressly stated, include cost of fixing materials, appliances, tools and tackles including crane and scaffolding, handling, hoisting, setting, fitting, fixing in position and protecting plant and equipment, disposal of debris and all labour and other incidental items required in preparation for and in full and entire execution of the work called for in each item in accordance with these documents, general trade practices and recognized principles.	Vendor to Specify			
17.05	All statutory rates, taxes and duties of whatever nature including but not limited to excise duty, customs duty, value added tax, sales tax, turn over tax, octroi, works contract tax, service tax, etc. shall be indicated separately.	Vendor to Specify			
17.06	For price evaluation, total supply and labour value of the complete project, on TURNKEY basis will be considered. For any alternatives proposed by the firms will be analyzed and finalized after technical scrutiny, on technical case-to-case basis.	Vendor to Specify			

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18.00	BHEL Scope of Supply				
18.01	The BHEL shall only provide adequate 3 phase, $50 \pm 5\%$ Hz, $415 \pm 10\%$ V, 3 wire electric supply at one point.	Vendor have to Confirm			
19.00	Provisions to be given by BHEL				
19.01	Bidder have to give preliminary civil drawing for civil work to be carried out by BHEL within 2 weeks of LOI/ WO.	Vendor to Specify			
19.03	Bidder have to give total requirement of electrical point, water, air, etc. at one point.				
19.04	Bidder have to clearly indicate any other requirement from BHEL in the technical offer, otherwise it will be assumed that any future requirement to complete the work on TURNKEY basis will be in the scope of the contractor.	Vendor to Specify			
20.00	PRE-QUALIFICATION REQUIREMENTS				
20.01	The following conditions have to be satisfied by the Bidder. Documentary proofs are to be enclosed with techno-commercial bid. In case the tenderer fails to enclose the same the tender will be rejected.	Vendor to Specify			
20.01.01	Bidder must be a reputed OEM (Original Equipment Manufacturer) supplier or OEM Company's Authorised Dealer.	-do-			
20.01.02	Only those vendors will be entertained, who have supplied & commissioned atleast 2 nos. Package-type AC system of same capacity or higher rating for industrial or similar application.	Vendor to Specify			
20.02	Performance certificate from the customers regarding satisfactory performance of AC Equipment supplied to them.	-do-			

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21.00	REFERENCE LIST				
21.01	The following information is to be submitted by the vendor about the companies where similar AC Equipments have been supplied. This is required from all the vendors for qualification of their offer.	Vendor to Specify			
21.02	Name of the customer / company where similar AC Equipment are installed.	-do-			
21.03	Complete postal address of the customer.	-do-			
21.04	Year of commissioning.	-do-			
21.05	Application for which the AC Equipment is supplied with details of performance achieved on the job.	-do-			
21.06	Name and designation of the contact person of the customer.	-do-			
21.07	Phone, FAX no. and email address of the contact person of the customer.	-do-			