

TECHNICAL SPECIFICATIONS AND OTHER ALLIED REQUIREMENTS

Sl No.	Description of items	Quantity
PUR/228/SET/AP/E/2020-21		
01.	AIR COOLED CHILLER (Details specifications are as per below ANNEXURE-I)	01 No.

1. INSTALLATION/COMMISSIONING

- 1.1. The ordered goods are to be installed at CSIR-CMERI. Installation should be carried out only by expert engineer of Supplier/Manufacturer without extra cost. During the course of Installation, necessary training if required on operation and maintenance of the goods shall be imparted to relevant Scientist/Engineers/Technicians.

2. WARRANTY

- 2.1. Comprehensive on-site warranty for a period of one year must be provided to be effective from the date of satisfactory installation of the items/equipment at the User's laboratory/Institute.

3. OTHER QUALIFICATION REQUIREMENT

- 3.1 Manufacturer Authorization Form (MAF) submission is mandatory for NON-OEM Bidders.

ANNEXURE - I

Technical Specifications

Air cooled Chiller

Sl No	Item	Requirement
1.	Cooling Capacity	10 TR
2.	Operating water temp	10 - 20 °C with a rated chilled water outlet temp 15 °C
3.	Temperature stability	$\pm 1^{\circ}\text{C}$
4.	Compressor	Scroll type
5.	Condenser type	Fin and tube air cooled
6.	Expansion Valve	Thermostatic type
7.	Heat Exchanger	Shell & Tube / Plate type
8.	Reservoir	Should be made of SS and Insulated
9.	Reservoir capacity	200 Litre
10.	Temperature control	Microprocessor Based (Digital Display Type)
11.	Pump	Centrifugal type and SS impeller with 3 bar standard pressure
12.	Refrigerant	Eco friendly R410a / R407c preferred
13.	Controller	Micro-processor type
14.	Maximum ambient temperature	45°C
15.	Electrical	<ul style="list-style-type: none">• Microprocessor based control panel• MCBs for Compressor and Pump• Contactors for Compressor and Pump• Main switch On-Off
16.	Safety	<ul style="list-style-type: none">• Safety for high & low refrigerant pressure• MCB• Single phasing preventer• Dry run protection of the pump• Chiller ON-OFF Interlocking with safeties• Water level indicator• Over load safety• Fault indicator

Other Scope of Manufacturer/supplier and CSIR-CMERI

1. Piping between chiller and load will be provided by CSIR-CMERI, Durgapur. Necessary insulation of the chiller should be done by the manufacturer except piping between chiller and load. Dimensions of the adapter or regulator and pipe required between load and chiller will be decided after releasing purchase order and it will be arranged by CSIR-CMERI, Durgapur.
2. Power connection to the chiller will be provided by CSIR-CMERI, Durgapur. Power requirement should be communicated after receiving purchase order.
3. Detailed General arrangement drawing is to be submitted along with the technical bid documents.
4. Erection & commissioning of the chilling plant will be carried out by the manufacturer.
5. Supply of cooling water will be provided by CSIR-CMERI Durgapur during installation of the chiller.