



Indian Institute of Technology Kanpur

Department of Physics

Tender Ref. No.IITK/PHY/2022-23/SoM/13

Date: 05th August 2022

Bid Opening Date : 05/08/2022

Bid Submission Closing Date : 15/08/2022

Sealed quotations (**technical and financial separately**) from prospective vendors are invited by the Department of Physics, IIT Kanpur for “**Air Cooled Water Chiller**” with the following technical specification. All the quotations and tender related documents should be sent by speed post/Courier to inviting officer’s address (mentioned below).

We are looking for 5TR Air Cooled Water Chiller (Quantity:01)

TECHNICAL SPECIFICATION FOR AIR COOLED WATER CHILLER

Sl.no	Parameters	Specification	Vendor's Compliance /non-compliance
1	Application	Chilled Water supply to Helium Compressor	
2	Heat Load	5TR	
3	Outlet Cooling media Temperature from Chiller	15° C (Operating Temperature 16-20° C)	
4	Required Flow Rate	50 LPM	
5	Required Pressure	3 bar	
6	Cooling Media Details	Soft Water	
7	Rated Operating Ambient Temp.	~ 35° C	
8	Maximum Operating Ambient temp.	50° C	
9	Minimum Operating Ambient temp.	5° C	
10	Indoor / Outdoor Installation	Indoor/Outdoor	
11	Air Flow Direction	Top throw	
12	Cooling Capacity	5TR, 17.5Kw	
13	No. of Compressor Circuits	1	
14	Refrigerant	R407c	
15	No. of Process Pumps	2 (One for circulation and One for Backup)	

16	Type of Compressor	Scroll	
17	Type of Controller	Microprocessor	
18	Type of Condenser / MOC	Air cooled condensor / MCHE	
19	Type of Expansion Device	Thermostatic expansion valve	
20	Type of Evaporator / MOC	Brazed Plate Heat exchanger / SS 316 plates	
21	Reservoir Volume / MOC	125 litres/SS 304	
22	Type of Pump / MOC	SS impeller & CI casing	
23	MOC of other Wetted Parts	SS 304	
24	MOC of Chiller Frame	CRCA	
25	Castor Wheels / Hard mount	Hard mount	
26	Power Supply	3 PH, 415 V, 50 Hz	
27	Power Consumption	Approx. 6 kW	
28	Hydraulic End Connection Size & Type	1" BSP	
29	No. of Skids	1	
30	Skid (s) Description	Package	
31	Dimensions of Skid (s)	Approx. 650W*1100D*1500H	
32	Weight per Skid	Appr. 280kg	
33	Noise	80-85 dBa	
Additional specification			
	Two Separate input connections for Compressor and Water Pump		
Note			
1	Chiller performance rating ambient temperature	35 deg C	
2	Chiller performance rating media temperature	15 deg C	
3	Chiller temperature stability	+/- 2 deg C	
4	Add recommended percentage of glycol to water for media temperatures ...	< 5 g C	
5	Chiller performance tolerance	+/- 5 % for full load and + / - 12% for part load	

Minimum Eligibility Criteria:

- 1) Bidder should submit printed technical literature / brochure of the offered model, which should be fully complied with the specification as mentioned above otherwise the bid will be disqualified.

- 2) The OEM should successfully installed and commissioned similar or higher rating Systems to any Govt. / Defence / Research Institutions. Copy of PO / Installation report / Performance certificates should be submitted towards evidence.
- 3) The OEM should have minimum 10 years of experience in chiller manufacturing .
- 4) OEM should have local service engineer within the radius of 50 kms.

General Terms & Condition.

1. All vendors are requested to submit **“technical and financial bids”** together in separately sealed envelopes.
2. Evaluation will be done on the basis of technical specifications given in tender document.
3. Financial bid will be open for those only who qualify all the technical specification as per our tender notice.
4. Quotation must be valid for 60 days.
5. Payments terms: 100% after delivery & successfully installation.
6. Warranty should be clearly mentioned, the Warranty must start from the date of installation at IITK.
7. Only OEM or its authorized agents should quote, Quotation should carry proper certifications like proprietary certificate/ authorization certificate from manufacturer, etc.
8. Vendor must be able to perform factory acceptance testing of the product and demonstrate all the features prior to the dispatch.
9. The technical and price bid should indicate the model and part numbers of items quoted.
10. Bidders must submit minimum 5 satisfactory certificates from previous users.
11. Delivery time 6-8 week from the date of receipt of purchase order.
12. As per the new GST rule, Institute is not able to provide GST exemption certificate. GST has to be levied as per the applicable rate.
13. At any time prior to the deadline for submission of bid, the institute may, for any reason, at its own initiative, modify the bid document by amendments. Such amendments shall be uploaded on the website through corrigendum and shall form an integral part of bid document. The relevant clauses of the bid document shall be treated as amended accordingly. It shall be the sole responsibility of the prospective bidders to check the website from time to time for any amendment in the tender document. In case of failure to get the amendments, if any, the Institute shall not be responsible for it.
14. The Penalty @1% per week or part thereof subject to max 10% of the delivery price will be deducted from the balance payment, if supply is not completed within aforesaid delivery period.

15. The indenter reserves the right to withhold placement of final order. The right to reject all or any of the quotations and to split up the requirements or relax any or all the above conditions without assigning any reason is reserved.

Approved by



Dr. Soumik Mukhopadhyay (PI/Indenter)

Associate Professor

Department of Physics

IIT Kanpur, Kanpur – 208016

Inviting Officer



Dr. Biswanath Samantaray

Research Establishment Officer

Department of Physics

IIT Kanpur, Kanpur – 208016

Email: biswa@iitk.ac.in

Phone No.-0512-679-7793