

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

Department of Chemistry

Enquiry No.: IITK/CHM/PKB/2015/06

Opening Date: 18th June, 2015

Closing Date: 04th July, 2015

Sealed quotations are invited to supply of X-Ray Diffractometer Chiller as per technical specifications given below. The last date of submission of quotation is **04 July, 2015**.

Technical Specification for water Chiller

No.	Item	Description	Detail
1.	Chiller Details	Cooling Capacity	6,000kcal/hr (2TR)
		Min/Max Operating Temperature Range	+10 ^o C to +25 ^o C
		Min/Max Ambient Temperature Range	+5 ^o C to +45 ^o C
		Temperature Stability	± 2 ^o C
		Media to Cool	Clean Soft Water
2.	Main Refrigeration Components	Compressor Make	Emerson/Danfoss
		Compressor Type	Scroll
		Condenser Type	Air Cooled, Reputed
		Condenser Fans	HiCool/Equivalent
		Evaporator Type	CBE (Brazed Heat Exchanger)
		Evaporator Make	GEA/Equivalent
		Refrigeration Circuits	01
		Refrigerant	R407C (Eco Friendly)
3.	Refrigeration Controls	Filter Drier	Danfoss/Equivalent
		HP LP Cutout	Danfoss/Equivalent
		Expansion Valve Type	Thermostatic
		Expansion Valve Make	Sporlon/Equivalent
		Other Refrigeration Accessories	Danfoss/Equivalent
4.	Pump Details	SS304 Impeller Pump	Grundfos
		Pump Type	Centrifugal, Multistage
		Water Flow Rate	20 l/min @ 4bar
5.	Electrical Controls	MPCB for Compressor, Pump, Fan	Schneider
		Contactora for Compressor, Pump, Fan	Schneider
		Main Switch On/Off	Schneider
		Vertical Float Switch	Reputed
		Anti-Freeze Switch	Reputed
		Microprocessor based Controller	Subzero/Equivalent
6.	Water Reservoir	Volume	30 liters
		Construction	SS304
		Insulation Type	9mm Nitrile Rubber
		Insulation Make	Superlon/Equivalent
7.	Hydraulic Specs	Piping	Non Corrosive
		Bypass line with gate valve	Reputed
		Pressure Gauge	Wika/Equivalent
		Fill/Overflow/Drain/Level Indicator	Reputed
		Inlet/Outlet End Connections	1" BSP
8.	Structure Details	CRCA Profile	In house
		CRCA Channels with Mesh	In house
		Powder Coated	Admiral Grey 7035
9.	Power Details	Power Supply for Chiller	3Ph, 415V, 50Hz, AC
		Power Supply for Water Pump (For UPS)	1Ph, 230V, 50Hz, AC
		Allowed Voltage Variation	± 10%
		Power Consumption	3.22kW/9.1A
10.	Safety Devices	HP Trip	High Pressure
		LP Trip	Low Refrigerant
		WLL Trip	Water Level Low
		OLR Trip	Overload Relay Trip
		HT/LT Alarm	High/Low Temperature Alarm
		AFT Trip	Antifreeze Trip

Note :

1. Quotation must be valid for 60 days
2. Delivery period should not be more than **3 - 4weeks** and delivery should be at IIT Kanpur.
3. Send complete detail of the product(s).

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