

Indian Institute of Technology, Kanpur
Department of Biological Sciences and Bioengineering
Proprietary Article Certificate (PAC) Tender document

Sub: ENQUIRY LETTER FOR PURCHASE OF ULTRA LOW TEMPERATURE FREEZER
(-80°C) – 570 LITRES

Enquiry date: 04.10.2023

Enquiry No: IITK/BSBE/JGR/23-24/05

Extended Last date: 19.10.2023

Quotations are invited for the above-mentioned subject as per the technical specification given below

The general & technical specification for single quantity Ultra Low Temperature freezer with 570 litres capacity is mentioned below for easy understanding and the tender notice is for three (03) quantity

General specification: ULT Freezer with 570Litres, 5 inner compartments (4 shelves, 5 inner doors), door handle on left side, air-cooled, the standard voltage and frequency should be 230V/50Hz

Technical Specification (for single unit):

Capacity:	570 L; 20.1 Cu. Ft.
Number of compartments:	05
Racks per shelf:	05
Upright Racks per freezer:	25
Box Capacity:	50 mm (2 in; 10x10) box = 400
Sample Capacity:	50 mm (2 in; 10x10 box) = 40000
Temp Range:	Programmable temperature range from -50°C to -86°C in 1°C increments, even at ambient temperature up to 32°C. The instrument should be engineered to maintain an internal temperature of -86°C, even when operated in ambient temperature condition of up to 32°C
Control:	Micro Processor control LED display User interface based on PhysioCare Concept should be available
Cascade Refrigeration:	Hermetically-sealed two stage cascade system with capacity to cope in high-ambient conditions should be provided

Construction:	Construction should have the following features <ul style="list-style-type: none"> -Interior Polished 304 2B SS -Easy cleaning -potential for oxidation -Exterior 18 gauge Steel -1.2 mm thick with powder coated paint to resist scratch and rust
Door seal:	Inner door should be fitted with low temperature safe silicone seal to prevent temperature loss when opening the outer door at least 01 number(s). Outer door should be fitted with low temperature, safe seal which should provide tight fit
Insulation:	PolyUrethane Foam (PUF) insulation is needed
Refrigerant charge:	Natural Gas/ Green HydroCarbon (HFC, HCFC, CFC free); High stage: R290: Low stage: R170
Shelves:	5 compartments with 4 corrosion resistant Stainless steel, heavy duty of 65 kg load per shelf is needed. 05 Nos. sealed insulated inner doors with secure closures for 05 Nos. compartments to provide easy access & comfort of use
Security:	Specific Manual Lock on Door handle with Password protection for freezer settings to prevent unauthorized users from opening the main door and also changing the parameters on the display control has to be provided To secure the handle lock using padlock without requirement for additional adapters have to be provided, i.e., padlock should be provided.
Power:	On-Off switch behind the locked panel, preventing power from being accidentally turned off, this feature is needed.
Battery Backup:	Should activate alarm and display temperature during power outage.
User Interface:	Alarms for adjustable high/low temperature, powerfail, battery low, filter clean, fault should be provided
Heated Air vent:	Automatic vent port on front door to improve energy consumption and uniformity to provide easier access for fast reopening of the chamber door after closure.
Filter:	Mounted compressor filter should be easily visible and accessible And it should be reusable

Electric Power:	230 V/50 Hz, Current rating 7.0 A
Programmed startup:	Programmed random startup time, 60-90 seconds apart, preventing power supply overload, multiple freezer restart simultaneously following a power failure should be available
Noise Level:	57.5 dB
Max Heat Output @-80°C:	346 W (1,180 BTU/ h) Power Consumption @-80°C: 8.3 kWh/day
Pull down Time:	From freezer empty state, from 20°C ambient to -80 °C, it should reach within 4 hours
Warmup Time:	(freezer 2/3 full, from -85 °C to 0 °C): 40 Hrs Door open Recovery after 15 sec door opening (freezer set to -80 °C): 10 min
Certification:	CE and CSA certified WEEE, ROHS, REACH.
Voltage stabilizer:	5 KVA Stabilizer (from a standard make)
Warranty	03 Years for ULT freezer and stabilizer should be provided.

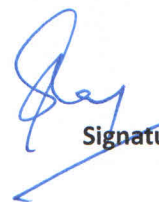
The quotation should reach the undersigned on or before the last date

PI/ Indentor details:

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Terms and Conditions:

1. Quotations should be sent to the PI/ Indentor address
2. **Proprietary Article Certificate (PAC) is necessary** for participating in the tender.
3. Quotation should be valid for minimum 90 days
4. Ensure to specify make and model of offered product.
5. Three years of warranty should be provided for the instrument and stabilizer.
6. Payment terms should be mentioned in the quote
7. All process should be F.O.R.
8. Delivery period should be within 10 weeks from the date of purchase order followed by the installation and demonstration by the supplier.
9. The Institute reserves the right to cancel the tender at any stage without assigning any reason thereof.



Signature of the PI/ Indentor