



**INDIAN INSTITUTE OF TECHNOLOGY BOMBAY**  
**MATERIALS MANAGEMENT DIVISION**  
Powai, Mumbai 400076.

Ref No.(PR No.1000041909)

(Rfx No. 6100001842)

**Technical Specifications : Ultracentrifuge (Qty : 1 No.)**

<b>Sr. No</b>	<b>Item Description</b>	<b>Detailed Technical Specification</b>	<b>Technical Compliance (Yes / No)</b>
1	Max. RCF : 68,000 x g or more		
2	Max. Rotor Capacity : upto 4 litre		
3	Control : Touch-screen interface (can be used with gloved hand)		
4	Drive System : brushless, high-frequency, direct drive		
5	Temp. Set Range : -10° C to 40° C		
6	Refrigeration system : CFC/ HCFC free		
7	Run Time : 99hrs; Hold		
8	Temp. Control Accuracy : $\pm 2^{\circ}\text{C}$ of set temperature		
9	Speed control range : Minimum 500 rpm, Maximum 24,000 rpm		
10	Speed Control Accuracy : $\pm 25$ rpm		

11	Programmability : 99 programs or more, 99 hours 59 min 59 sec, HOLD		
12	Must have "at-start" and "at-speed" options.		
13	Acceleration/ Deceleration Profile : 9 Accel, 10 Decel, with brake off option.		
14	Power : 200-240 VAC, 50 Hz, 30 A, single phase		
15	The centrifuge must provide automatic and instant rotor identification, completed upon installation of the rotor into the centrifuge, before the run is started		
16	System must be able to setup Step run, 30 profile/speed/time triplets, up to 3 steps each.		
17	The onboard free software must be able to provide operator log.		
18	Fast, simple, and secure push-button rotor exchange mechanism to automatically lock the rotor onto the drive adapter, eliminating the need for a tool or to hand tighten.		
19	Max. Speed : 24,000 rpm or more		
20	The centrifuge must have an energy savings mode ("sleep mode") to reduce power consumption up by turning itself off if idle after a period of time.		
21	Noise must be less than 60dBA & heat output must be less than 3.5 kW		

22	The centrifuge must be able to satisfy cULus , IEC 61010, ROHS, WEE and CE safety requirements without being bolted to the floor, to provide flexibility to relocate within the facility.		
23	<p>The centrifuge must be quoted along with following rotors:</p> <ul style="list-style-type: none"> <li>a) Fixed Angle, Carbon Fiber rotor: 6 x 500 mL (max rpm 12,000 &amp; Max Rcf 24,000 x g)</li> <li>b) Fixed Angle rotor 8 x 50ml (max rpm 24,000 &amp; Max Rcf 68,500 x g) Adapter for 1.5 ml tubes</li> </ul>		
24	Warranty of the system 1year		