# Technical Specifications
# Innova INOFD-10P Freeze Dryer
# Innova Make

| **This freeze dryer is suitable for small to medium-scale laboratory operations and offers precise control over the freeze-drying process, ensuring optimal preservation of sensitive products.** | |
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| **Specification** | **Requirement** |
| **Technical details of freeze dryer – Innova INOFD-10P** | Main Features:<br>Drying Capacity:<br><br>Capacity (Per Batch): 3–5 kg<br>Shelf Area: 0.1–0.12 m² (varies by model)<br>Cooling System:<br><br>Refrigeration Type: Hermetically sealed compressor<br>Cooling Method: Air-cooled<br>Vacuum System:<br><br>Ultimate Vacuum: ≤ 10 Pa<br>Vacuum Pump: External vacuum pump, generally oil-based rotary vane pump.<br>Temperature Range:<br><br>Condenser Temperature: -45°C to -80°C (depending on the configuration)<br>Shelf Temperature: Programmable from -50°C to +70°C<br>Condenser Capacity:<br><br>Ice Condenser Capacity: 3–6 kg per 24 hours (varies depending on the product)<br>Max Ice Condensation Rate: 3 kg per 24 hours (can vary based on product type)<br>Chamber:<br><br>Material: Stainless steel interior chamber for enhanced durability and easy cleaning.<br>Number of Shelves: 4 to 6 shelves, adjustable<br>Shelf Spacing: Configurable to different heights<br>Tray Size: Typically around 200 mm × 300 mm (varies)<br>Control System:<br><br>Touch Screen Control Panel: Fully automatic control with a touch screen interface.<br>Programmable Drying Cycles: Up to 10 or more custom drying programs can be set.<br>Data Logging: Ability to log drying data for review and optimization.<br>Defrosting System: Hot gas or electric defrosting system for quick and efficient removal of ice from the condenser.<br><br>**Scroll Pump system and filters: for organic solvent drying or concentrating**. |

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| | Power Supply:<br><br>Voltage: 220 V, 50 Hz<br>Power Consumption: 2.5–4.0 kW depending on the model and usage.<br>Physical Dimensions:<br>Dimensions (W × D × H): 600 mm × 600 mm × 900 mm (Approx. varies by model)<br>Weight: 80–100 kg (varies by configuration)<br>Additional Features:<br>Stainless Steel Trays: Resistant to corrosion and easy to clean.<br>Safety Features: Overload protection, alarms for pressure and temperature deviations.<br>Sample Types: Suitable for aqueous samples, biological samples, pharmaceuticals, and delicate food products.<br>This freeze dryer is suitable for small to medium-scale laboratory operations and offers precise control over the freeze-drying process, ensuring optimal preservation of sensitive products. |
| Warranty | 2(two) years after satisfactory installation and working excluding consumable parts and accessories. |
| Training | The supplier will have to carry out successful Installation at the laboratory premises (where ever the system has to be installed) and provide on-site comprehensive training for a minimum of two<br>scientific personnel operating the system till customer satisfaction |
| List of Spares and Accessories | List of all spares and accessories (including minor) with part numbers and price, required for maintenance and repairs in future after guarantee/warranty period should be attached |
| Stabilizer | Stabilizer as required for functioning of the equipment. Stabilizer price should be included in freeze drier price. |
| After sales service/ Post warranty | Contact details of manufacturer, supplier and local service agent to be provided, including toll free/ Landline Number;<br>Should have a good after sales service/technical support capable of reaching at short notice the places where instrument is installed. Visits and unlimited breakdown calls<br>by service/application support, engineers should attend immediately without fail |
| Compliance statement | The quote should also include a compliance statement vis-a-vis Specifications in a "tabular form" clearly stating the compliance and giving justification if any supported by technical literature. This statement must be signed, with the company seal, for its authenticity and acceptance that any incorrect or ambiguous information found submitted will result in disqualification. |
| Payment | Payment only after installation, validation and performance demonstration |