

LAB REFRIGERATOR

AVI-102 SERIES



TECHNICAL DATA

Temp Range	2°C to 8°C
Temp Accuracy	± 0.5°C
Supply	230V, Single Phase

Introduction

Almost every laboratory requires some sort of refrigeration to store samples and various other analytes. Lab refrigerators, therefore, act as the most reliable repository for all such samples and products. The refrigerated coil was first invented in the 11th century by a Persian scientist called Ibn Sina, who used refrigerated tubings to distil essential oils. Later in 1851, John Gorrie became the first man to invent the ice-making machine. 1930's found the coming of the first built-in refrigerator made by Electrolux. The evolution of refrigerators is vast and unending. Finally, in 2010 SANYO launched the world's most efficient and safe ULT freezer with -86° dual cooling technology.

These lab refrigerators are majorly used because the domestic refrigerating systems often do not have enough stability and temperature predictability. Thus, making them unsafe for storage of delicate lab equipment.

Avante Lab Refrigerators are made with high-end and reliable technology that is the right fit for all lab requirements. These refrigerators ensure stable and low-temperature storage for products that require a high amount of cooling for storage, Avante Lab Refrigerators ensure the optimum temperature for clinical research as well as for pharmaceutical and industrial usage. They come with adjustable shelves and wide-range set points for all types of uses such as in chromatography and pharmaceutical storage.





CONCEPTION

Avante manufactures Lab Refrigerators constructed with double-walls using high-quality thick PUF insulation. The full-view inner doors are acrylic based and the front door comes with a gasket and a keyed door for enhanced safety. The back-side of the cabinet is equipped with a motorised blower that ensures and maintains uniformity in temperature inside the chambers using a unique airflow system. This airflow system also ensures faster recovery after the doors open. High quality, specially designed adjustable SS rod trays which are completely user-friendly and make sure the temperature inside the cabinets remains stable. Castor wheels for easy mobility.

LAB REFRIGERATORS FIND TEST APPLICATION IN

- Medicines
- Analytes
- Blood samples
- Cultures
- Dry product freezing
- Medicines
- Reagents
- Storage of vaccines

Controlling system

An imported system, based on a Microprocessor with auto-tuned PID controller. Certified CE mark that ensures premium quality. Dual display of process and set values.

Sensor

To sense the temperature, the refrigerator is equipped with a PT-100 sensor

Heating system

For high-class heating results, Avante uses S.S tubular heaters

Refrigeration system

Hermetically sealed Emerson Copeland compressor for enhanced cooling with R134 A (Eco Friendly) refrigerant. CFC compressor to ensure eco-friendly results. The compressor is safeguarded using a time-delay system.

Validation port

To place validation sensors, a validation port of 50mm made with silicon rubber seal is inserted

PRINCIPLE CHARACTERISTICS

- Lighted working area
- Stainless Steel rod trays that ensure uniformity of temperature inside the cabinets
- To keep a look at the sample inside the cabinet, acrylic doors with a gasket are installed with a full view of the inside for better observation



SAFEGUARDING TRAITS

- Overheating is prevented using Safety standby thermostat that cuts off the supply of heat in such cases
- The Hermetically sealed compressor is protected using an in-built load protector. When the compressor is ON, it
- delays the time by 2 min to ensure the safety of the compressor

TECHNICAL DATA			
Models	Capacity Liters	Internal Size Dia x Ht cm	Rating kw
AVI-102A	100	50 x 50 x 40	2
AVI-102B	170	70 x 60 x 40	2
AVI-102C	200	60x 60 x 60	2
AVI-102D	285	80 x 60 x 60	2
AVI-102E	325	90 x 60 x 60	2
AVI-102F	400	110 x 60 x 60	2
AVI-102G	600	125 x 70 x 70	2
AVI-102H	800	125 x 80 x 80	2
AVI-102I	1000	157 x 80 x 80	4
AVI-102J	1500 (Double Door)	146 x 150 x 69	4
AVI-102K	2000 (Double Door)	146 x 150 x 92	4

DISCRETIONARY FEATURES

- A control system - PLC based
- A Stand by Refrigeration System
- An RS-485 communication system
- A data logger
- A data scanner with a sensor and mobile alert system using SMS
- A CFR 21 Part 11 compliance software
- Digital temperature controlling system
- Digital timer
- Security system with door access

STANDARD MODEL

This model has S.S. 304 mirror polished interiors and mildly white powder coated exteriors

GMP MODEL

This model has S.S. 316 interiors with mirror polish & stainless steel 304 with dull buff finish on the exterior

Note: The design, color, specification, and models are subject to transformation due to ending research, development, and technological advances.

India

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