Advance Biotech Solutions India Pvt. Ltd.

(Advance Technologies, Effective Solutions)

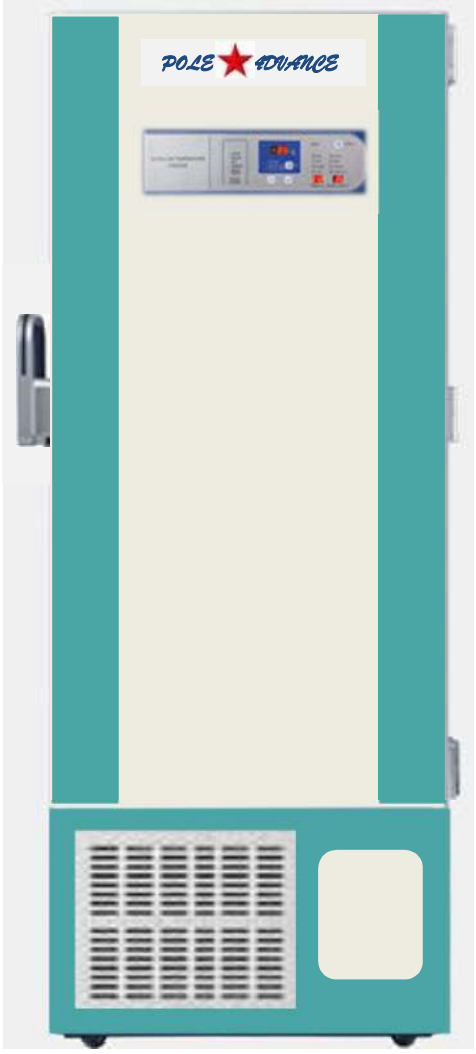
(An ISO 9001:2015 Certified Company)

MADE IN INDIA
MADE IN INDIA

POLE ★ ADVANCE

ULT FREEZER (-80°) SINGLE DOOR

ABSIPL IS A MARKET LEADER IN REFRIGERATION TECHNOLOGY. ABSIPL REPRESENTING MARKET WITH WIDEST RANGE OF DEEP FREEZER BY THEIR OEM MANUFACTURED REFRIGERATION SYSTEM AND EVAPORATORS. THIS PRODUCT IS DESIGNED TO STORE VACCINES, BLOOD PLASMA, BIOLOGICAL MATERIALS. APPLICATIONS COULD BE FOUND IN THE ELECTRONIC AND CHEMICAL LABORATORIES EPIDEMIC PREVENTION, HOSPITALS, ANIMAL HUSBANDRY BLOOD BANKS AND RESEARCH INSTITUTES. IT CAN BE USE FOR PRODUCTS WHICH REQUIRE STRICT STORAGE CONDITIONS SUCH AS VIRUSES, PATHOGENS, RED BLOOD CELLS, WHITE BLOOD CELLS, SKIN, BONES, BACTERIA, SEMEN, BIOLOGICAL PRODUCTS, OCEAN PRODUCTS, ELECTRONIC DEVICES AND SPECIAL MATERIALS. SUITABLE FOR LONG TERMS STORAGE, MEETING THE COLD STORAGE REQUIREMENTS FOUND IN HOSPITALS, DISEASE CONTROL AND PREVENTION CENTERS, SCIENTIFIC RESEARCH INSTITUTIONS BIOMEDICAL ENGINEERING INSTITUTE, AGRICULTURE/ FISHERY COMPANIES AS WELL AS THE ELECTRONICS AND CHEMICAL INDUSTRY.



Note: Product appearance and specifications are subject to change without notice

Field Proven reliability

- **Double door / Single design more convenient to be used by different users.**
- **Unique insulated inner door design for separate storage compartments to minimize frost buildup inside the chamber.**
- **Vacuum Relief port for easier and frequent door opening.**
- **Specialized control system design for a well-balanced operation of cascade refrigeration system.**
- **Uses CFC/HCFC Free Hydro Carbon (Natural) Refrigerant for faster temperature recovery.**

Low noise level

- **Specialized refrigeration system design using whisper quiet fan and compressors.**
- **Freezer chassis designed to absorb vibration and sound.**
- **Noise level**

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Safety

- **Malfunction alarms including high and low temperature, Power Failure, Sensor errors, Clean-filter Hot Condenser.**
- **Capable of producing two types of alarm outputs: audibled buzzer and visible flashing light multiple built-in system protection code for controls, user settable delay to start voltage compensation system and protection against extreme high voltages.**
- **Door ajar feature standard on all single door upright models.**

Energy saving

- **Unique door seal design for the minimum loss of cold temperature during a door opening.**
- **Polyurethane insulation panels to minimize cabinet heat gain and to improve temperature stability.**
- **Patented cabinet insulation system design for optimal performance of cold storage temperature and minimal frost build up.**
- **Unique design of independent insulated inner door systems for independent access of storage space to provide the maximum protection of stored samples.**
- **Power management system with low voltage surge protection and buck/boost.**
- **Heat Output (220-240V) 300-500 W.**

Installation & Application

- **Wide range operating voltage system from 185V to 260 V designed to allow units installed in areas with poor voltage condition.**
- **Suitable for 10°C to 32°C ambient temperature.**
- **Input voltage and ambient temperature shown simultaneously for ease of monitoring environmental conditions**
- **Robust door latch designed for secure door closing.**
- **Compact casters for ease of maneuvering.**

Key design features

- **Microprocessor controlled system designed for controllable range of -50°C to -86°C settable in 1°C increment.**
- **Energy consumption 6.5 KW/24 hours up to 14 KW/24 hours depending on ambient condition and size of ULT Freezer.**
- **Energy efficient and sealed cascade refrigeration system with pull down time of less than 5.2 hrs.**
- **Large LED/LCD display for cabinet temperature, set temperature.**
- **Settable high temperature and low temperature alarms**
- **Automatic clean-filter alarm and sensor error alert**
- **Adjustable storage shelf height**

4/5 Individual Inner Doors

- 4 /5 individual inner doors can be opened independently to minimize frost buildup inside the chamber.
- Unique door seal design for the minimum loss of cold temperature during a door opening.
- Compatibility with existing racking system from competitors.
- Stainless steel handle to ensure proper strength for door latching.

Excellent Doors Seals

- Total of five gaskets to safeguard the freezer temperature, including four seals for the exterior door, one for each inner door

Circular- chart Recorder (Optional)

- Front-mounted.
- For independent temperature monitoring

Pressure Equalization Port to allow the freezer door to be open shortly after adding samples

Two port holes for ease of temperature monitoring

German EBM condenser fan, intelligent on and off power saving system

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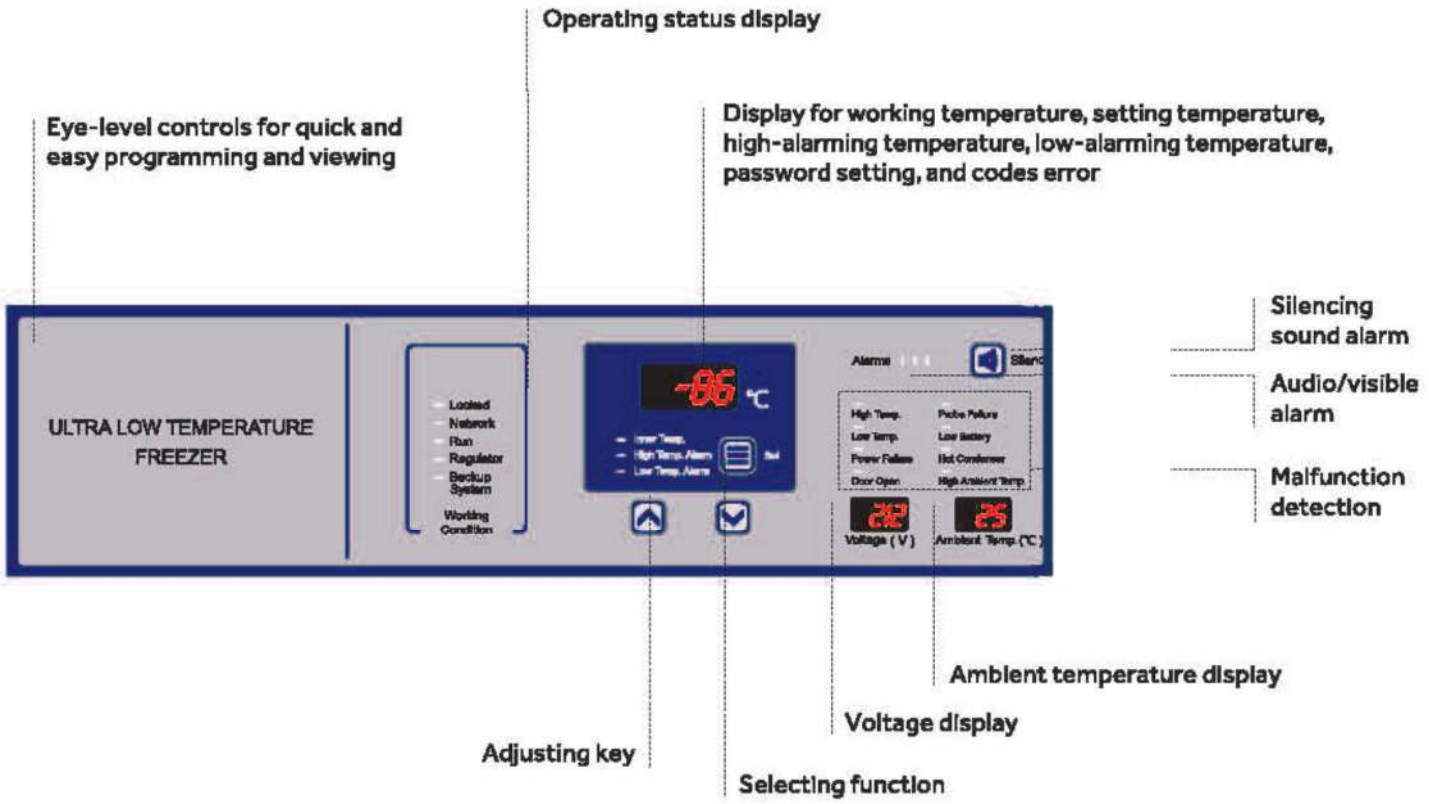
EBRACO compressor of 1 H.P each under cascade cooling system .

FEATURES AND BENEFITS



Alarm	Alarm Triggering Condition
High Temperature	Temperature reaches the warm alarm limit
Low Temperature	Temperature reaches the low alarm limit
Power Failure	Equipment loses power
Door Open	Door open period exceeds 5 mins
Probe Failure	• Main cabinet temperature control sensor fails • Condenser sensor fails • Ambient sensor fails • Heat exchanger sensor fails • Heat exchanger temperature fails
Low Battery	Battery capacity runs low or battery switch is not turned on
Hot Condenser	• Condensers filter element is clogged • Ambient temperature is too high
High Ambient Temperature	Ambient temperature exceeds 32°C

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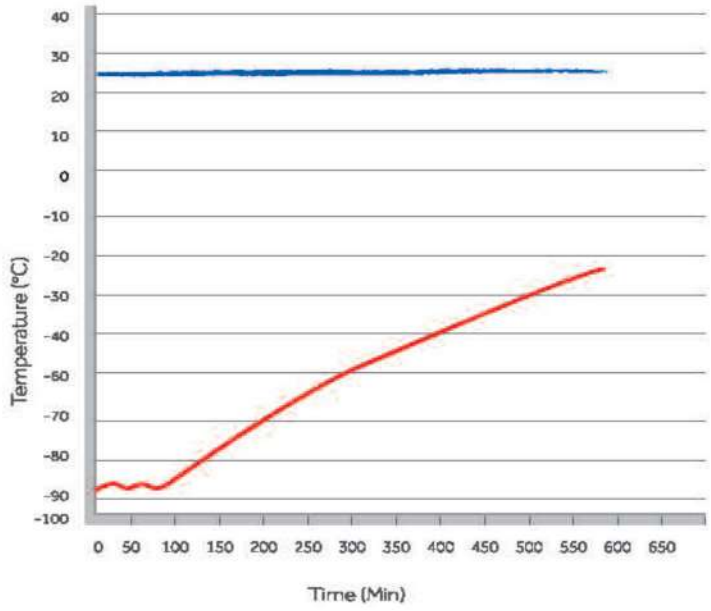
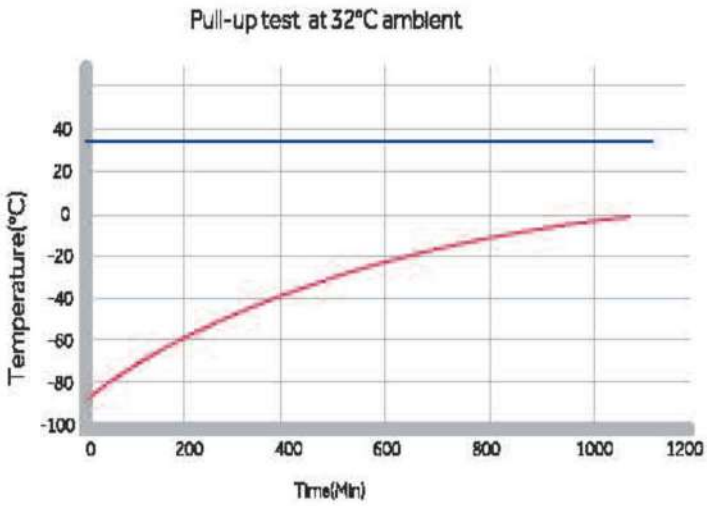
Latest Insulation Technology

- Made up of 150 mm compressed polyurethane foam (PUF) Insulation
- Thick (High density) Insulation minimize heat load of the cabinet.
- Provides stable storage temperature.
- Energy Efficient due to blockage of convective heat transfer.
- Saves valuable floor space in laboratory due to slim design.
- Offers large storage space.
- Pull up / Warm-up time from -80°C to -50°C more than 6 hours at 25°C ambient temperature.
- Pull down time from ambient to -86°C is less than 5.5 hours at 25°C ambient temperature.





Optional Accessories

- Touch Panel Control
- Stainless Steel Fixed type rack.
- Stainless Steel Drawer Type rack
- CO_2 Emergency cooling back-up system
- USB Port to download data
- Cardboard Boxes with divider.
- Inkless Circular 7-days Chart Recorder
- Wireless Data monitoring and control system for remote monitoring and control
- Wireless data logging with 21CFR
- RFID door access key card
- Inventory Management System

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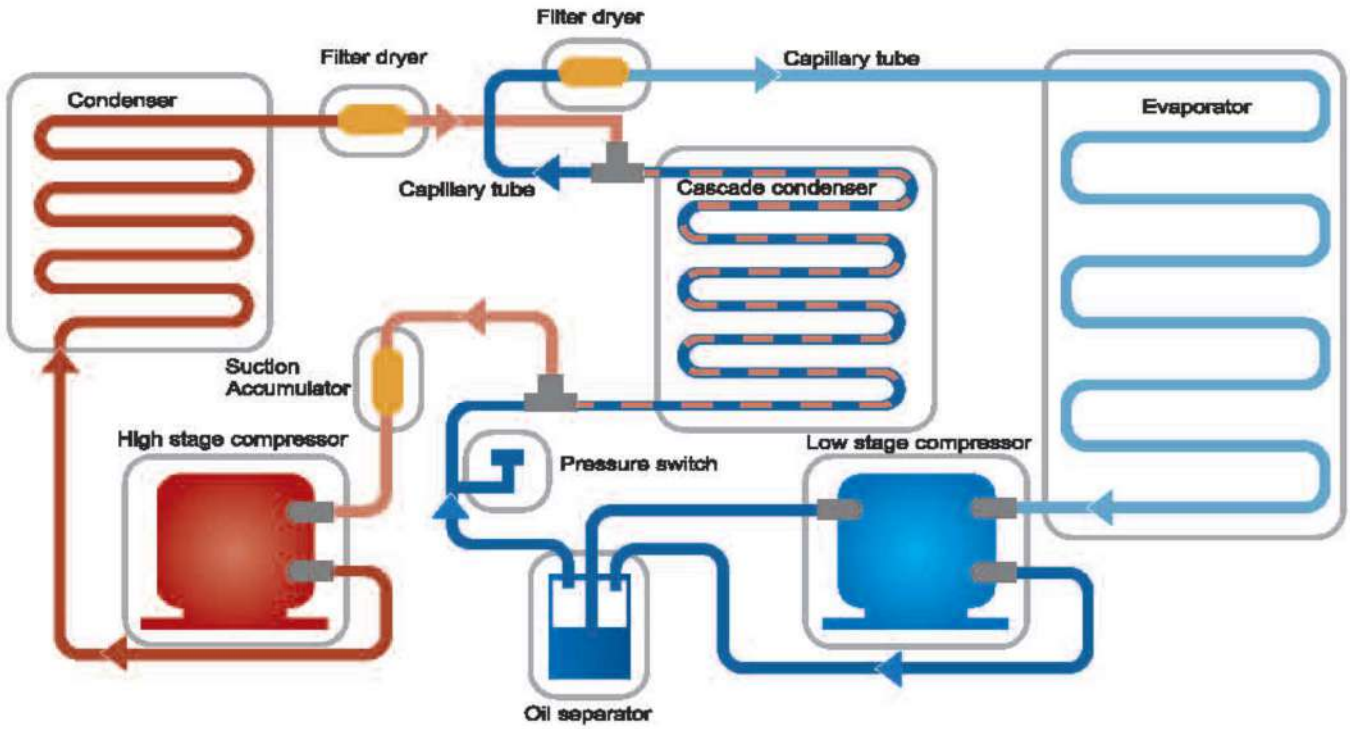
Heat exchange circulation system of ultra low temperature freezer



	Filter Filter for refrigerant to protect system from the water and other entering
	Capillary tube for high stage High temperature refrigerants flow into the evaporator from the Capillary tube
	Capillary tube for low stage Low temperature refrigerants flow into the evaporator from the Capillary tube
	High stage condenser Extra-large air cooled condenser dissipates product heat content efficiently.
	Low stage Evaporator The close contact design between the evaporating tube and the inner cabinet increases the heat conducting efficiency
	Ultra low noise compressor Compressor provides reliable performance with ultra low noise Specially designed low stage evaporator yields excellent temperature uniformity and recovery after loading and door opening. Both high and low stage compressors are industrial grade hermetically sealed compressor designed for low temperature application. Sound level is extremely low.
	Heat exchanger system Heat exchanger between the high and low temperature stage in the system
	Temprite oil separator Temprite oil separator can effectively separate oil and water so as to improve the refrigeration performance

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Specification of all Single Door Model

Model	PSA-86SDU350	PSA-86SDU425	PSA-86SDU525	PSA-86SDU625	PSA-86SDU650
Cabinet Type	Vertical	Vertical	Vertical	Vertical	Vertical
Climate Class	N	N	N	N	N
Cooling Type	Direct Cooling				
Exterior / Interior	Powder Coated / Stainless Steel 304				
SS Shelves / Inner Door	3/4- 4/5	3/4- 4/5	3/4- 4/5	3/4- 4/5	3/4- 4/5
Defrost Mode	Manual				
Refrigerant	HC/CFC-Free, HCFC-Free				
Noise (dB)	51				
Cooling performance	-80±2 (°C)				
Temperature Range	-50 ~ -86 (°C)				
Controller	Microprocessor				
Display	LED/LCD Touch				
Power Supply (V/ Hz)	220~230/50				
Power (W)	600	700	800	800	800
Electrical Current (A)	5.5	6.5	7	7.5	7.5
Power Consumption	7.5 kw/day	8.5 kw/day	9 kw/day	9 kw/day	9 kw/day
Average Heat Output	963 BTU/h	1071 BTU/h	1152 BTU/h	1260 BTU/h	1260 BTU/h
Capacity (Net/ Gross) L	350/355	425	525	625	650
Net/ Gross Weight (approx.) kg	250/300	300/330	330/360	350/380	355/390
Interior Dimension (W x D x H) in Inches	19 x 25 x 46	24 x 25 x 52	24 x 28 x 52	30 x 28 x 52	30 x 29 x 52
Exterior Dimension (W x D x H) in Inches	32 X 36 X 73	36 X 36 X 78	36 X 39 X 78	38 X 42 X 78	38 X 43 X 78
ALARM CONDITIONS					
High/ Low Temperature	Yes	Yes	Yes	Yes	Yes
Hot Condenser	Yes	Yes	Yes	Yes	Yes
Power Failure	Yes	Yes	Yes	Yes	Yes
High/Low Voltage	Yes	Yes	Yes	Yes	Yes
Sensor Error	Yes	Yes	Yes	Yes	Yes
Low Battery	Yes	Yes	Yes	Yes	Yes
High/ Ambient Temp.	Yes	Yes	Yes	Yes	Yes
Door open	Yes	Yes	Yes	Yes	Yes
Test Hole	Available	Available	Available	Available	Available
USB Data logging Port	Available	Available	Available	Available	Available
Certification	CE, FDA, RoHS				

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Specification of all Single Door Model

Model	PSA-86SDU125	PSA-86SDU500	PSA-86SDU600	PSA-86SDU700	PSA-86SDU800
Cabinet Type	Vertical	Vertical	Vertical	Vertical	Vertical
Climate Class	N	N	N	N	N
Cooling Type	Direct Cooling				
Exterior / Interior	Powder Coated / Stainless Steel 304				
SS Shelves / Inner Door	1/1	3/4- 4/5	3/4- 4/5	3/4- 4/5	3/4- 4/5
Defrost Mode	Manual				
Refrigerant	HC/CFC-Free, HCFC-Free				
Noise (dB)	51				
Cooling performance	-80 ±2 (°C)				
Temperature Range	-50 ~ -86 (°C)				
Controller	Microprocessor				
Display	LED/LCD Touch				
Power Supply (V/ Hz)	220~230/50				
Power (W)	600	700	800	800	850
Electrical Current (A)	5.5	6.5	7	7.5	8.0
Power Consumption	4 kw/day	8.5 kw/day	9 kw/day	9.5 kw/day	10 kw/day
Average Heat Output	720 BTU/h	1152 BTU/h	1260 BTU/h	1386 BTU/h	1386 BTU/h
Capacity (Net/ Gross) L	125/130	450/500	600/625	700/725	800/825
Net/ Gross Weight (approx.) kg	150/190	300/350	350/380	380/410	390/430
Interior Dimension (W x D x H) in Inches	18 X 18 X 24	24 x 25 x 52	28 x 28 x 52	30 x 30 x 52	30 x 32 x 52
Exterior Dimension (W x D x H) in Inches	30 X 34 X 58	38 X 36 X 78	40 X 40 X 78	42 X 42 X 78	42 X 45 X 78
ALARM CONDITIONS					
High/ Low Temperature	Yes	Yes	Yes	Yes	Yes
Hot Condenser	Yes	Yes	Yes	Yes	Yes
Power Failure	Yes	Yes	Yes	Yes	Yes
High/Low Voltage	Yes	Yes	Yes	Yes	Yes
Sensor Error	Yes	Yes	Yes	Yes	Yes
Low Battery	Yes	Yes	Yes	Yes	Yes
High/ Ambient Temp.	Yes	Yes	Yes	Yes	Yes
Door open	Yes	Yes	Yes	Yes	Yes
Test Hole	Available	Available	Available	Available	Available
USB Data logging Port	Available	Available	Available	Available	Available
Certification	CE, FDA, RoHS				

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311, Vardhman Key Point Plaza, Plot No.1, Local Shopping Centre, Sector-6, Dwarka, Near DAV Public School New Delhi-110 075 Ph: 011-25074703/25050521, Email Id: - skp@absipl.in, Website: - www.absipl.in