

# HRV-470

## Hermetic Heating Cooling Circulator

Lab1st HRV-4 series hermetic heating cooling circulators have a working range of  $-40^{\circ}\text{C}$  to  $200^{\circ}\text{C}$ , and are widely used in pharmaceutical, chemical, biological and other industries to provide heat and cold sources. The machine adopts a fully enclosed pipeline design and is equipped with a high-efficiency plate heat exchanger, which reduces the demand for heat transfer fluid and improves the heat utilization rate of the system to achieve rapid temperature rise and fall. The heat transfer medium is in a hermetic system with an expansion tank. The heat transfer medium in the expansion tank does not participate in the circulation. Whether it is high temperature or low temperature, the expansion tank is kept at  $60^{\circ}\text{C}$ , which effectively reduces the risk of the heat transfer medium absorbing moisture and volatilizing during operation.

## Features

Design temperature range:  $-40^{\circ}\text{C}$  to  $200^{\circ}\text{C}$

Pre-cooling device, cooling system and heating system can be used in combination

Fast cooling rate, forced rapid cooling

Real-time monitoring of liquid level tube to avoid lack of heat carrying fluid

Circulation system is closed, no volatilization, to protect the health of the experimenter

The liquid storage tank and circulation pipeline are made of 304 stainless steel with good corrosion resistance

With high and low voltage protection, overload protection, over current protection, grounding protection and other protection functions



## Parameters

Model	HRV-470
———— TECHNICAL DATA ————	
Design Temperature Range [ $^{\circ}\text{C}$ ]	$-40\sim 200^{\circ}\text{C}; \pm 1^{\circ}\text{C}$
Ambient Temperature [ $^{\circ}\text{C}$ ]	$\leq 30^{\circ}\text{C}$
Optimum Ambient Humidity	0.6
Temp. Sensor	PT100
Safety	Multi-protection: Overvoltage, Delay, Overcurrent, Overheating, Leakage, Protector
———— ELECTRICAL REQUIREMENTS ————	
Voltage	220/380V
Phase	3P
Frequency	50/60HZ
Total Power [Kw]	12
Heating Power [Kw]	6
———— COOLING CAPACITY [w] ————	
RT	12775

0°C	10500
-40°C	850
————COMPRESSOR————	
Type	Fully Enclosed
Brand	Ankang
Power [Kw]	5.25
Phase	7
Refrigerating Fluid	R404A
————CONDENSER————	
Type	Sealed Air Cooling
Fans Type	Axial Flow Outer Rotor
Fans Quantity	1
————CIRCULATION PUMP————	
Type	Canned Motor Pump
Power [W]	280
Lift [m]	12
Rated Flow [L/min]	35
————EXTERNAL CIRCULATION————	
Expansion Tank Volume [L]	17
External Circulation Interface	G3/4"Outer Wire
————WEIGHT   DIMENSION————	
Unit Weight [Kg]	170
Unit Dimension [mm]	770×670×1180

## Packages

W (mm)	CBM (m3)
D (mm)	Weight (kg)
H (mm)	

\* Technical details and dimensions are subject to change. No liability is accepted for errors or omissions. Illustrations can deviate from the original.