

# **Zhengzhou Elab Instrument Co., Ltd.**

## **GD-10/(20-80)**

### **10L Heating And Cooling Circulator**

#### **Features and Technical Parameters**

##### **Description:**

Heating And Cooling Circulator including: cooling function, heating function circulation system. It is composed of refrigeration unit, heating unit, circulation system and control system. Refrigeration part is mechanically refrigerated by a fully enclosed compressor, composed of plate heat exchangers, expansion valves, and pressure protectors to meet the cooling requirements.

Heating part is the use of electric heating tubes to heat the circulating fluid. And through the built-in circulating pump and the external circulating pipeline, the refrigerant or heat medium is transported to the interlayer of the supporting equipment, which indirectly cools and heats the materials in the reactor.

During external circulation, connect the upper outlet pipe of the product to the lower inlet pipe of the kettle body, and the circulating fluid will

return to the lower return port of the product through the pipe from the upper circulation port to form a complete circulation space.

### **Feature:**

- 1.It is divided into three system:refrigerating system,heating system and pre-cooling system.Three systems can be used continuously and separately.
- 2.Cold me Fast heating and cooling,temperature can be increased and lowered continuously.
- 3.With the function of self-diagnosis,refrigerator protecting time,freezer high-pressure switch,overload relays,thermal protection devices and other safety functions.Wide temperature control range,the heat transfer fluid is not easy to volatilize and oxidize at high temperature,or not easy to absorb conducting medium
- 4.Complete closed circulating system,the heat fluid is not easy to volatilize and oxidize at high temperature,or not easy to absorb moisture under low temperature,which can prolong the service life of heat transfer fluid.
- 5.High temperature cooling and refrigeration function,can lower from high temperature level directly.

### **Product Picture**



Zhengzhou Elab Instrument Co., Ltd.

Website: [www.zzlab.com](http://www.zzlab.com)

**Pictures are for reference only, subject to actual availability.**

### **Main Technical Parameters**

<b>Model</b>	<b>GD-10/20</b>	<b>GD-10/30</b>	<b>GD-10/40</b>	<b>GD-10/80</b>
Operating temperature range	-20 ~+200℃	-30~+200℃	-40~+200℃	-80~+200℃
Optimum ambient temperature	5~35℃	5~35℃	5~35℃	5~35℃
Environment humidity	≤70%ventilation	≤70%ventilation	≤70%ventilation	≤70%ventilation
Power supply	1phase 220V/50HZ	1phase 220V/50HZ	three phase380V/50HZ	three phase380V/50HZ
Safety protection	Delay, overcurrent, overheating, overtemperature	Delay, overcurrent, overheating, overtemperature	Delay, overcurrent, overheating, overtemperature, phase sequence, phase loss protection	Delay, overcurrent, overheating, overtemperature, phase sequence, phase loss protection
Display	LCD display, key operation	LCD display, key operation	LCD display, key operation	LCD display, key operation
Temperature control accuracy	±1℃	±1℃	±1℃	±1℃

Sensor	PT100	PT100	PT100	PT100
Total power	4203W	4203W	5305W	7510W
Heating power	3000W	3000W	3000W	3000W
[Compressor]Specification	Totally closed	Totally closed	Totally closed	Totally closed
[Compressor]Quantity	1	1	1	2
[Compressor]Power	1103W	1103W	2205W	4410W
[Compressor]Cooling capacity	3486W	3486W	6972W	13944W
[Circulation pump]Power	100W	100W	100W	100W
[Circulation pump]Head	4-6M	4-6M	4-6M	4-6M
[Circulation pump]Flow	20-40L/min	20-40L/min	20-40L/min	20-40L/min
[Circulation pump]Pressure	$\leq 0.4\text{MPa}$	$\leq 0.4\text{MPa}$	$\leq 0.4\text{MPa}$	$\leq 0.4\text{MPa}$
Refrigerant	R22	R22	R22	R22
Body material	Cold plate spray anti-corrosion	Cold plate spray anti-corrosion	Cold plate spray anti-corrosion	Cold plate spray anti-corrosion
Outer loop interface	4 points wire mouth with 4 points $\times$ 2 meters metal circulation pipe two	4 points wire mouth with 4 points $\times$ 2 meters metal circulation pipe two	4 points wire mouth with 4 points $\times$ 2 meters metal circulation pipe two	4 points wire mouth with 4 points $\times$ 2 meters metal circulation pipe two
Circulating fluid	Grade A Silicone Oil	Grade A Silicone Oil	Grade A Silicone Oil	Grade A Silicone Oil

Machine size (LxWxH)	640×570×870mm	640×570×870mm	640×570×870mm	804×703×900mm
Machine net weight	105KG	105KG	115KG	/
Package weight	121KG	121KG	131KG	/