

## Chiller

# **Recirculating Chiller**



### Principle:

This product is mechanically cooled by a fully closed compressor. The inner wall of the cooling tank has a cooling copper coil. The refrigerant (Freon) circulates continuously through the coil of the inner wall of the tank to cool the refrigerant in the tank, and the refrigerant is transported to the sandwich or condensing coil of the supporting equipment through the built-in circulation pump and external circulation pipeline. Indirectly cooling the materials in the reactor, cooling and liquefaction of the condensing pipe contact steam.

This product can generally be connected to the sandwich of the double layer reaction kettle, the rotary evaporator, the condensing coil of the reaction kettle, and can also be used to put the object or container to be cooled directly into the bath for reaction.

From the lower outlet pipeline of the product is connected to the lower inlet pipeline of the kettle body or condenser, and the circulating liquid comes out from the upper circulation port and returns to the inlet of the product through the pipeline, forming a complete circulation space.

#### Features:

- \* Famous manufacturers of original closed compressor, advanced performance, reliable quality.
- \* Professional relays, protectors, capacitors, etc., are well-known brands of high-quality equipment to ensure reliability and service life.
- \* Digital display temperature control, simple operation, eye-catching.
- \* A variety of functions, can provide low temperature quality cooling water, low temperature unfrozen liquid, small low temperature water bath.
- \* Can be combined with circulating water type multi-purpose vacuum pump, vacuum freeze-drying oven, rotary evaporator, magnetic stirrer and other instruments, suitable for multi-functional low temperature conditions of chemical reactions, drug storage.
- \* It can be matched with a variety of large precision equipment to overcome the difficulty of expensive instruments and equipment that can not be used because of bad cooling water, high temperature and unstable water pressure.

#### **Technical Parameters:**

| Model                              | CCA-420                    | DLSB-5/20  | DLSB-20/40           |  |
|------------------------------------|----------------------------|--|----------------------|--|
| Temp. Display                      | LCD display                |  |                      |  |
| Tank Volume                        | 4L                         | 6.8L   | 21L                  |  |
| Matching Reaction Kettle(Steam)    | 1~2L                       | 1~5L   | 20L                  |  |
| Tank Material                      | 304 Stainless Steel        | 201 Stainless Steel                                      |                      |  |
| Tank Size                          | 220*155*120mm              | Ф220*180mm   | Ф300*300mm           |  |
| Temp. Control Accuracy             | ±0.1℃                      |  |                      |  |
| Display Temp. Resolution           | 0.1℃                       |  |                      |  |
| Pump Lift                          | 1.5~2.7m                   | 4~6m   |                      |  |
| Circulating Pump Flow              | 8~16L/min                  | 20~40L/min   |                      |  |
| Refrigerant                        | R134A                      | R290   | R404A                |  |
| Refrigerating Capacity             | 450~260W                   | 2324W  | 6972W                |  |
| Pressure                           | ≤0.4Mpa                    |  |                      |  |
| Ambient Relative Humidity          | 70%,Ventilation            |  |                      |  |
| Instrument Temp. Control Range     | -20°C~RT                   | -40°C~RT   |                      |  |
| Optimum Ambient Temp.              | 5~35℃                      |  |                      |  |
| Unload Min Temp.                   | -20℃                       | -20°C  | -42℃                 |  |
| Circulation Pump Power             | 10W                        | 100W   |                      |  |
| Circulating Pump                   | Magnetic pump              | Fully-closed &No-leaked special pump                     |                      |  |
| Circulating Water Mouth Interface  | Outer diameter 12 mm       | wplopase.c   | Outer diameter 16 mm |  |
| Sensor                             | PT100                      |  |                      |  |
| Coil Diameter                      | pase.cc / v                | Ф185mm   | Ф250mm               |  |
| Opening Size                       | 1                          | Ф200mm   | Ф250mm               |  |
| Power Supply                       | AC220V, 50/60Hz            | Standard: AC220, 50/60Hz; optional: AC110, 60Hz          | AC220V, 50/60Hz      |  |
| Secure Protection                  | Overload protection,       | Leakage, overload circuit breaker, Overload relay        |                      |  |
|                                    | Overheating protection,    | circuit, Refrigerator protection timer, Circulating pump |                      |  |
|                                    | Refrigerator               | thermal protector, Refrigerator high-pressure pressure   |                      |  |
|                                    | delay protector            | switch, Temperature control self-diagnosis function      |                      |  |
| External Size(W*D*H)mm             | 520*250*560                | 485*423*(760+400)  | 590*670*(975+500)    |  |
| Package Size(W*D*H)mm              | 580*300*570                | 595*435*880  | 720*590*1140         |  |
| Gross Weight(kg)                   | 30                         | 58   | 133                  |  |
| Accessories                        | In and out joint *1,       | In and out joint *1, Vertical rod*1,                     |                      |  |
|                                    | silicone pipe insulation*2 | Thermal insulation pipe*2                                |                      |  |
| Applicable Rotary Evaporator Model | BK-RE-1A, RE-2010,         |  |                      |  |
|                                    | RE-2000A, RE-2000B,        | RE-301, RE-501 RE-1002, ExRE-1002, RE-2002               |                      |  |
|                                    | RE-2000E, RE-52A,          |  |                      |  |
|                                    | RE-52CRE-5299,             |  |                      |  |
|                                    |                            |  |                      |  |

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