



SHENSHENG

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Heating & Cooling Circulator



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HEATING CIRCULATOR



Heating supply for Jacketed Glass Reactor with highest temperature of 300 °C .

Close circulation of thermal oil to prevent oil mist and oxidization, which increases its lifespan.

UC series have quick cooling function to cooling down from 300 °C to room temperature.


Outstanding safety features and performance.

Optional EX Proof: EXdIIBT4Gb. 

Parameter

Model		LY - 5020	LY - A020	UC - 5020	UC - A020	UC - 5030	UC - A030
Temp. Control Range (°C)		50 - 200 °C	50 - 200 °C	50 - 200 °C	50 - 200 °C	50 - 300 °C	50 - 300 °C
Flow Rate (L/min, bar)		35 L/min 2.5 bar	50 L/min 2.5 bar	35 L/min 2.5 bar	50 L/min 2.5 bar	35 L/min 2.5 bar	35 L/min 2.5 bar
Heating Power (kW)		5.5	10	5.5	10	5.5	10
Cool Down Power (kW)	65 °C	/	/	1.8	3.4	3	5.5
	100 °C	/	/	4	8	4	7
	200 °C	/	/	5.5	10	5	9
	300 °C	/	/	/	/	5.5	10
Temperature Display		Digital Display					
Circulation Type		Close Circulation, No Oil Mist, No Oxidization to Thermal Oil					
Dimension (cm)		40×60×105H	40×60×105H	40×60×105H	40×60×105H	60×60×125H	60×60×125H
Power Supply		380V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz

Safety Feature

Model	LY - 5020	LY - A020	UC - 5020	UC - A020	UC - 5030	UC - A030
Error Alarm	●	●	●	●	●	●
Overload Protection	●	●	●	●	●	●
EX-proof (Optional) 	○	○	○	○	○	○

Symbol Instruction: ● - Equipped , ○ - Optional

COOLING CIRCULATOR



Cooling supply for condenser and Jacketed Glass Reactor with lowest temperature of -80°C .

Optional temperature control range: $\text{RT} \sim -15^{\circ}\text{C}$, $\text{RT} \sim 25^{\circ}\text{C}$, $\text{RT} \sim -45^{\circ}\text{C}$, $\text{RT} \sim -60$, $\text{RT} \sim -80^{\circ}\text{C}$.

Copeland compressor with cascade refrigeration technology guarantees the stabilization under low temperature.


Close circulation of thermal oil to prevent imbibitions from air during cooling, which ensures the purity of thermal oil to increase its lifespan.


Safety features including self-diagnosis, high pressure protection, overload relay, compressor over-temp protect.

Optional EX Proof: EXpxdmbIICT4. 

COOLING CIRCULATOR

Parameter

Model	DL – 2005	LX - 0400	LX - 0700	LX – 1000	LT-5040	LT-5062
Temp. Ctrl Range (°C)	-15°C - RT	-25°C - RT	-25°C - RT	-25°C - RT	-45°C - RT	-45°C - RT
Temp. Ctrl Accuracy	2°C	1°C	1°C	1°C	1°C	1°C
Flow Rate (L/min, bar)	15 L/min 0.7 bar	20 L/min 0.7 bar	35 L/min 1 bar	50 L/min 1 bar	20 L/min 0.7 bar	35 L/min 1 bar
Cooling Power (kW)	20°C	1.5	4	7	9.5	3.5
	0°C	1	2.5	4.2	7.5	3.2
	-10°C	0.5	1.5	2.7	6.3	3.2
	-20°C	/	0.8	1.5	3.5	2.7
	-40°C	/	/	/	/	0.75
Coolant	R-404A	R-404A	R-404A	R-404A	R-404A	R-404A
Temperature Display	Digital					
Close Circulation	●	●	●	●	●	●
Dimension (cm)	40×32×65H	40×60×115H	50×68×135H	45×68×145H	50×68×135H	50×68×145H
Power Supply	220V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz
EX-proof (Optional)	 EXpxdmbIICT4					

Model	LT-5090	LT - 6530	LT - 6562	LT - 6590	LT-8062	LT-8090
Temp. Ctrl Range (°C)	-45°C - RT	-60°C - RT	-60°C - RT	-60°C - RT	-80°C - RT	-80°C - RT
Temp. Ctrl Accuracy	1°C	1°C	1°C	1°C	1°C	1°C
Flow Rate (L/min, bar)	20 L/min 0.7 bar	35 L/min 1 bar	35 L/min 1 bar	35 L/min 1 bar	35 L/min 1 bar	35 L/min 1 bar
Cooling Power (kW)	0°C	6.2	2.5	4.5	7.5	5.5
	-20°C	5.5	1.45	2.5	3.4	4
	-40°C	1.5	1.2	2.1	2.8	2.8
	-60°C	/	0.6	1.2	1.6	1.6
	-75°C	/	/	/	/	0.9
Coolant	R-404A	R-404A	R-404A	R-404A	R-404A	R-404A
Temperature Display	Digital					
Close Circulation	●	●	●	●	●	●
Dimension (cm)	50×68×145H	50×68×135H	65×70×165H	65×70×165H	65×70×165H	65×70×165H
Power Supply	380V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz
EX-proof (Optional)	 EXpxdmbIICT4					

Thermostat – Heating & Cooling Circulator



Provide both heating and cooling sources for Jacketed Glass Reactor.

Wide temperature range from -90 °C to 250 °C.
High accuracy of temperature control of both jacket and reactant

Copeland compressor with cascade refrigeration technology guarantees the stabilization under low temperature.

Close circulation of thermal oil to prevent oil mist and oxidization during heating and imbibitions from air during cooling, which ensures the purity of thermal oil to increase its lifespan.

LCD touchpad control with RS485 and Ethernet interface for process programming and recording.


Safety features including self-diagnosis, high pressure protection, overload relay, compressor over-temp protect.

Optional EX Proof: EXpxdmbIICT4. 




操作界面

Thermostat (Temperature Range: -25 ~ 200℃)

Parameter						
Model	SUNDI - 235	HR - 35	SUNDI - 255	HR – 50	SUNDI - 270	HR - 70
Temp. Range	-25 - 200℃	-25 - 200℃	-25 - 200℃	-25 - 200℃	-25 - 200℃	-25 - 200℃
Temp. Accuracy	0.5℃	0.5℃	0.5℃	0.5℃	0.5℃	0.5℃
Control Mode	Smart PID					
Temp. Feedback	PT100	PT100	PT100	PT100	PT100	PT100
Control Target	Material, Jacket	Jacket	Material, Jacket	Jacket	Material, Jacket	Jacket
Flow Rate (L/min, Bar)	35L/min, 2bar	35L/min, 2bar	50L/min, 2bar	35L/min, 2bar	50L/min, 2bar	35L/min, 2bar
Expansion Vessel (L)	13L	13L	15L	15L	18L	18L
Heating Power	3.5kW	3.5kW	5.5kW	5.5kW	7kW	7kW
Cooling Power @200℃	3.5kW	3.5kW	5.5kW	5.5kW	7kW	7kW
Cooling Power @100℃	3.5kW	3.5kW	5.5kW	5.5kW	7kW	7kW
Cooling Power @20℃	3.5kW	3.5kW	5.5kW	5.5kW	7kW	7kW
Cooling Power @-5℃	3kW	3kW	4.5kW	4.5kW	6.6kW	6.6kW
Cooling Power @-20℃	1.8kW	1.8kW	2.8kW	2.8kW	3.8kW	3.8kW
Compressor	Copeland	Copeland	Copeland	Copeland	Copeland	Copeland
Coolant	R-404A	R-404A	R-404A	R-404A	R-404A	R-404A
Closed Circulation	●	●	●	●	●	●
Touchpad	●	○	●	○	●	○
Programmable	●	/	●	/	●	/
For Capacity	10L – 20L	10L – 20L	30L – 50L	30L – 50L	50L – 100L	50L – 100L
Dimension (cm)	50×68×145H	50×68×145H	50×68×145H	50×68×145H	50×68×145H	50×68×145H
Power Supply	380V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz
EX - Proof 	(Optional) EXpxdmbIICT4					


Symbol Instruction: / - Not Applicable , ● - Equipped , ○ - Optional

Thermostat (Temperature Range: -50 ~ 250℃)

Parameter						
Model	SUNDI - 535	HRT - 35	SUNDI - 555	HRT – 50	SUNDI - 575	HRT - 70
Temp. Range	-50 - 250℃	-50 - 250℃	-50 - 250℃	-50 - 250℃	-50 - 250℃	-50 - 250℃
Temp. Accuracy	0.5℃	0.5℃	0.5℃	0.5℃	0.5℃	0.5℃
Control Mode	Smart PID					
Temp. Feedback	PT100	PT100	PT100	PT100	PT100	PT100
Control Target	Material, Jacket	Jacket	Material, Jacket	Jacket	Material, Jacket	Jacket
Flow Rate (L/min, Bar)	35L/min, 1bar	50L/min, 1bar	50L/min, 1.5bar	50L/min, 1bar	75L/min, 1.5bar	50L/min, 1bar
Expansion Vessel (L)	13L	13L	15L	15L	18L	18L
Heating Power	3.5kW	3.5kW	5.5kW	5.5kW	7.5kW	7.5kW
Cooling Power @250℃	3.5kW	3.5kW	5.5kW	5.5kW	7.5kW	7.5kW
Cooling Power @100℃	3.5kW	3.5kW	5.5kW	5.5kW	7.5kW	7.5kW
Cooling Power @0℃	3kW	3kW	5kW	5kW	7kW	7kW
Cooling Power @-20℃	1.5kW	1.5kW	2.85kW	2.85kW	4.2kW	4.2kW
Cooling Power @-40℃	0.45kW	0.45kW	0.9kW	0.9kW	1.5kW	1.5kW
Compressor	Copeland	Copeland	Copeland	Copeland	Copeland	Copeland
Coolant	R-404A	R-404A	R-404A	R-404A	R-404A	R-404A
Closed Circulation	●	●	●	●	●	●
Touchpad	●	○	●	○	●	○
Programmable	●	/	●	/	●	/
For Capacity	10L – 20L	10L – 20L	30L – 50L	30L – 50L	50L – 100L	50L – 100L
Dimension (cm)	50×68×145H	50×70×145H	50×68×145H	50×70×145H	50×68×145H	50×70×145H
Power Supply	380V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz
EX - Proof 	(Optional) EXpxdmbIICT4					

Symbol Instruction: / - Not Applicable , ● - Equipped , ○ - Optional

Thermostat (Temperature Range: -70 ~ 250℃, -90 ~ 250℃)

Parameter						
Model	SUNDI - 735	SUNDI - 755	SUNDI - 775	SUNDI - 935	SUNDI - 955	SUNDI - 975
Temp. Range	-70 - 250℃	-70 - 250℃	-70 - 250℃	-90 - 250℃	-90 - 250℃	-90 - 250℃
Temp. Accuracy	0.5℃	0.5℃	0.5℃	0.5℃	0.5℃	0.5℃
Control Mode	Smart PID					
Temp. Feedback	PT100	PT100	PT100	PT100	PT100	PT100
Control Target	Material, Jacket	Jacket	Material, Jacket	Jacket	Material, Jacket	Jacket
Flow Rate (L/min, Bar)	35L/min, 1bar	50L/min, 1.5bar	75L/min, 1.5bar	50L/min, 1.5bar	50L/min, 1.5bar	110L/min, 1.5bar
Expansion Vessel (L)	13L	13L	15L	15L	18L	18L
Heating Power	3.5kW	5.5kW	7.5kW	3.5kW	5.5kW	7.5kW
Cooling Power @250℃	3.5kW	5.5kW	7.5kW	3.5kW	5.5kW	7.5kW
Cooling Power @100℃	3.5kW	5.5kW	7.5kW	3.5kW	5.5kW	7.5kW
Cooling Power @-20℃	3kW	4.85kW	6kW	3.5kW	5.5kW	7.5kW
Cooling Power @-60℃	0.55kW	0.75kW	0.9kW	1.9kW	2.8kW	3.2kW
Cooling Power @-85℃	/	/	/	0.3kW	0.5kW	0.7kW
Compressor	Copeland	Copeland	Copeland	Copeland	Copeland	Copeland
Coolant	R-404A/R23	R-404A/R23	R-404A/R23	R-404A/R508B	R-404A/R508B	R-404A/R508B
Closed Circulation	●	●	●	●	●	●
Touchpad	●	○	●	○	●	○
Programmable	●	/	●	/	●	/
For Capacity	10L – 20L	30L – 50L	50L – 100L	10L – 20L	30L – 50L	50L – 100L
Dimension (cm)	55×70×135H	55×70×135H	55×70×160H	55×70×160H	70×80×165H	70×80×165H
Power Supply	380V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz
EX - Proof 	(Optional) EXpxdmbIICT4					

Symbol Instruction: / - Not Applicable , ● - Equipped , ○ - Optional

EX Proof Thermostat



EX Proof

EX Proof is compulsory when the thermostat is stationed and operated in EX zone in which there is explosive gas or dust. We offer EX proof upgrade per user needs.

EX Proof Type:

- Isolation EX Proof – Rate: EXdIIBT4
- Positive Pressure EX Proof – Rate: EXpxdmbIICT4

Thermostat – Positive Pressure EX Proof, Rate: EXpxdmbIICT4

Cooling Circulator – Positive Pressure EX Proof, Rate: EXpxdmbIICT4

Positive pressure EX proof is a must because isolation EX proof is not applicable to the compressor. The whole machine is put in the Positive Pressure EX Proof Cabinet. With positive pressure in the cabinet by air input, the whole machine is completely EX proof.

Heating Circulator – Isolation EX Proof, Rate: EXdIIBT4

Factory Show - Shanghai Shensheng Biotech Co., Ltd.



Manufacture Plant in Shanghai



Quality Mechanical Parts



Experienced Glassware Maker



Fine Processing by Computer
Numerical Control Machine



Individual quality control for
every unit



Pilot Scale Jacketed Glass Reactor



Pilot Scale Rotary Evaporator

Our Customer



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