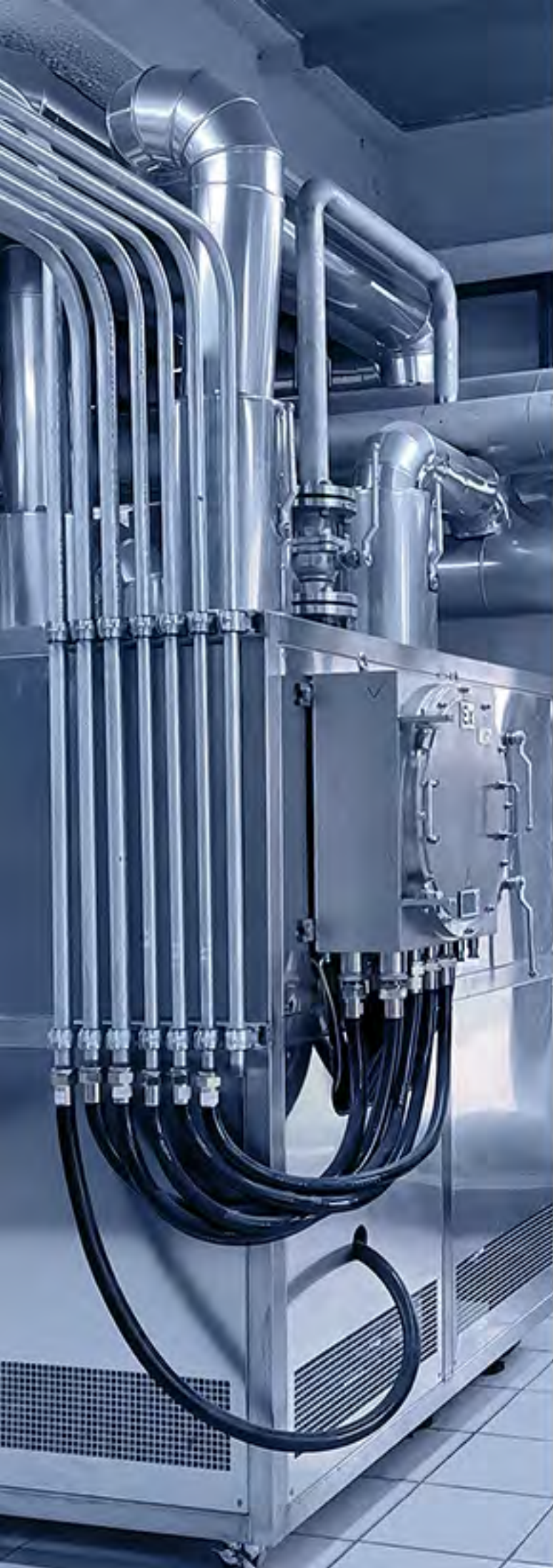




**LNEYA®**

# Cooling Heating Temp. Control Systems SUNDI-9 Series





## **Closed Circulation System**

Reduce heat transfer fluid demand  
and improve heat utilization



## **Security Alert Functions**

Various safety protection devices  
and self-diagnosis functions



## **Wide Temp Control Range**

Cooling heating integrated machine  
Temp range: -150 ~ 350°C



## **Curved Temp Control**

Precise control of reaction  
material temperature

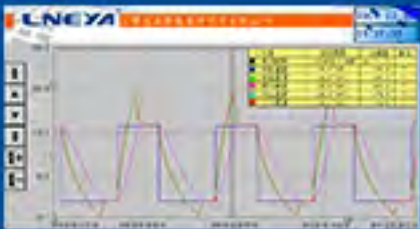




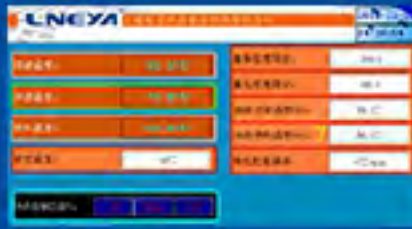
## Typical Applications

High Pressure Reactors  
Double Glass Reactors  
Double Reactors, Jacket Reactors  
Micro-channel Reactors  
Small Thermostatic Control Systems  
Distillation and Extraction Systems  
Material High & Low Temp Aging Test  
Combined Chemical Temp Control  
Semiconductor Equipment  
Vacuum Chamber

Color Touch Screen:  
Large size  
Curve display  
Real-time changes



Temp Control Mode  
Material & outlet temp  
Free choice mode  
Temp difference can be set



Circulating Pump  
Magnetic pump  
No mechanical shaft seal



Heat Exchange System  
Plate heat exchanger and  
duct heater to improve  
heat exchange efficiency



Temperature Control  
Continuously adjust PID  
parameters for better  
control and response  
time.



Temperature Control  
Continuously adjust PID  
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# SUNDI-9系列

Model		SUNDI-925W	SUNDI-935W	SUNDI-955W	SUNDI-975W	SUNDI-9A10W	SUNDI-9A15W	SUNDI-9A25W	SUNDI-9A38W	SUNDI-9A60W	SUNDI-9A80W
Temp range		-90℃~+250℃									
Control Mode		Feedback PID + Our special dynamic control calculation, PLC controller									
Temp control		Process temp. control and jacket temp control model									
Temp difference		Set or control the temperature difference between jacket oil and raw material process									
Program Editor		5 programs, each program can edit 40 steps									
Communication Portocol		MODBUS RTU Protocol,RS485 interface									
Material temp feedback		PT100 OR 4~20mA or communication normal: PT100)									
Temp feedback		The temp of three points: the inlet and outlet of equipment,reactor material temp.									
Medium temp accuracy		± 0.5℃									
Material temp accuracy		± 1℃									
Heating power kW		3	3.5	5.5	7.5	10	15	25	38	60	80
Cooling capacity kW at	250℃	2.5	3.5	5.5	7.5	10	15	25	38	60	80
	0℃	2.5	3.5	5.5	7.5	10	15	25	38	60	80
	-60℃	1.1	1.9	2.8	3.2	4.2	6	10	16	24	32
	-80℃	0.35	0.5	0.8	1.2	1.6	2.1	3.5	6	11	15
	-85℃	0.2	0.3	0.5	0.7	0.85	1.3	1.9	3.5	6	8
Circulation pump max L/min bar		20	35	35	50	60	110	150	250	400	400
		1.2	1.2	1.2	1.2	1.5	1.5	1.5	1.5	2.5	2.5
Compressor		Emerson copeland / scroll compressor									
Throttle type		Thermal expansion valve									
Evaporator		Plate heat exchanger									
Operation Panel		7-inch touch screen, show temp. curve / EXCEL data output									
Safety protection		Self-diagnosis function; freezer overload protection; high pressure switch, overload relay, thermal protection device, high temperature protection and temp fault protection									
Closed circulation system		The whole system is full closed circulation, there is no oil mist at high temp and no water vapor at low temp, pressure do not rise up when system is running. The system will supply oil automatically at low temp									
Refrigerant		R-404A、R508B									
Connection size		G3/4	G3/4	G3/4	G1	G1	G1	DN32	DN40	DN65	DN65
Water-cooled type W (AT 20℃)		1100L/H 1.5~4bar G3/4	1900L/H 1.5~4bar G3/4	2400L/H 1.5~4bar G3/4	3200L/H 1.5~4bar G1	4000L/H 1.5~4bar G1 1/8	8m³/h 1.5~4bar DN40	12m³/h 1.5~4bar DN50	20m³/h 1.5~4bar DN65	30m³/h 1.5~4bar DN80	40m³/h 1.5~4bar DN100
Dimension(W) cm		55*70 *175	65*85 *190	65*85 *190	80*120 *185	80*120 *185	150*100 *185	200*145 *205	200*145 *205	250*160 *225	300*160 *225
Weight kg		260	295	365	570	680	950	1400	1750	2400	3150
Power MAX 380V 50HZ		7.5kW	11kW	16kW	20kW	24kW	35kW	60kW	92kW	134kW	170kW
Case material		Cold rolled steel powder coating (standard color 7035)									
Optional		Optional power 100V 50HZ single-phase,110V 60HZ single-phase, 230V 60HZ single-phase, 220V 60HZ three-phase,440V~460V 60HZ three-phase									



Wuxi Guanya Refrigeration Technology Co., Ltd. (LNEYA) specialized in the Industrial Chiller, Industrial Refrigerator, Multi-reactor Chiller (TCU), Battery Motor / Semiconductor Temperature Testing System and Ultra-low Temperature Chiller. Used in pharmaceutical, aerospace, semiconductor, new energy automotive battery / motor and other industries.

## About Us

The company is at the advanced level in the same industry in the research and development of single-machine cascade refrigeration technology, and the research on high and low temperature rapid temp. rise and temperature technology is at the international advanced level. In particular, the high-precision temp. control of the reactor is an internationally advanced single medium control  $-90\sim+250^{\circ}\text{C}$  continuous temperature control, and high precision linear control of the reactor material temp.



**300 million**  
**Annual sales**



**15 years**  
**R&D experience**