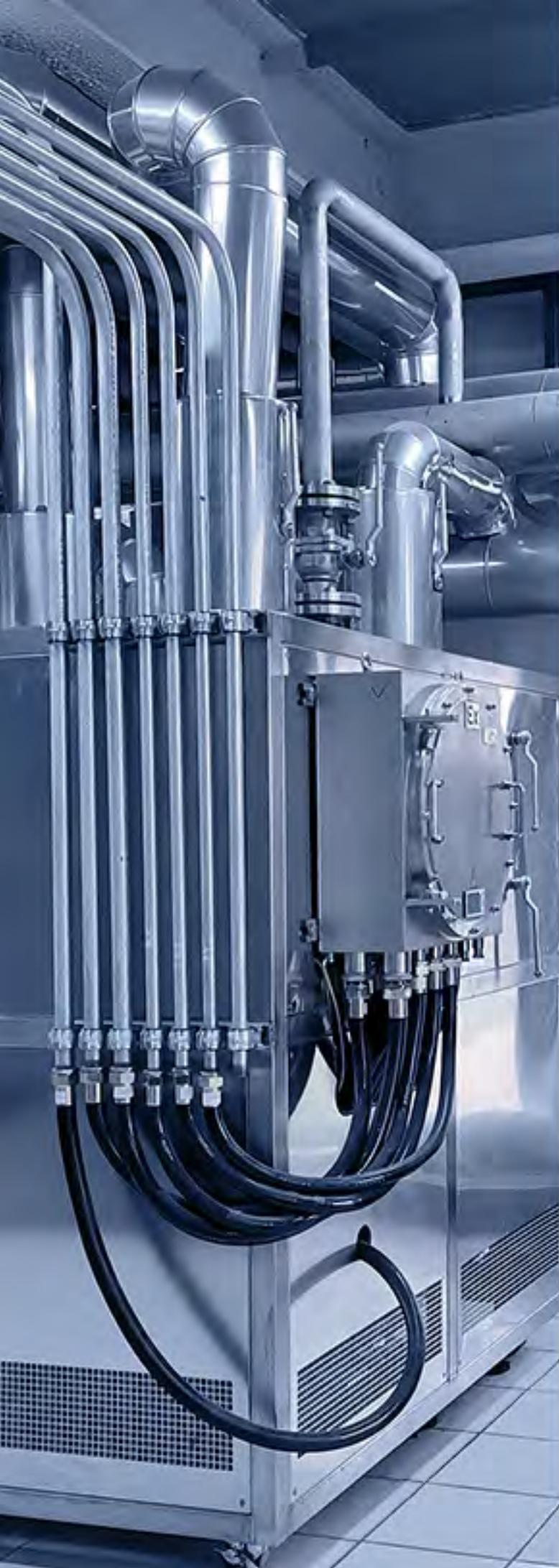




**LNEYA®**

**Cooling Heating  
Temp. Control  
Systems  
SUNDI-5 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

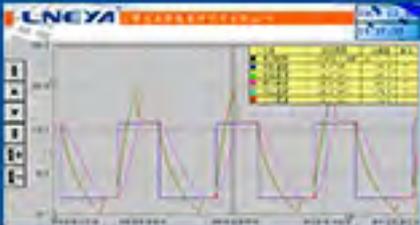
Precise control of reaction  
material temperature

# Typical Applications

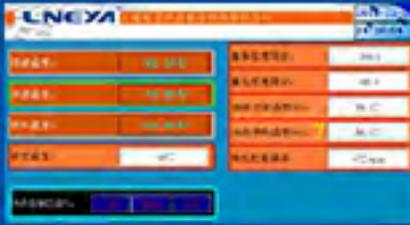


High Pressure Reactors  
Double Glass Reactors  
Double Reactors, Jacket Reactors  
Micro-channel Reactors  
Small Thermostatic Control Systems  
Distillation and Extraction Systems  
Material High & Low Temp Aging Test  
Combined Chemical Temp Control  
Semiconductor Equipment  
Vacuum Chamber

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  
parameters for better  
control and response  
time.



# SUNDI-5系列

Model	SUNDI-535W*	SUNDI-555W*	SUNDI-575W*	SUNDI-5A10W*	SUNDI-5A15W*	SUNDI-4A25W	SUNDI-4A38W	SUNDI-4A60W	SUNDI-4A95W	SUNDI-4A130W	SUNDI-4A200W	
Temp range	-45°C~+250°C											
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°C											
Material temp accuracy	± 1°C											
Heating power kW	3.5	5.5	7.5	10	15	25	38	60	95	130	200	
Cooling capacity kW at	250°C	3.5	5.5	7.5	10	15	25	38	60	95	130	200
	0°C	3	5	7	10	15	25	38	60	95	130	200
	-20°C	1.5	2.9	4.2	6	11	16	26	34	50	70	120
	-40°C	0.45	0.9	1.5	2	3.8	4.7	9	12	18	24	43
Circulation pump max L/min bar	35	35	50	60	110	150	200	250	400	400	600	
	1.2	1.2	1.2	1.5	1.5	1.5	1.5	2.5	2.5	2.5	2.5	
Compressor	Tecumseh / 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、R507C											
Connection size	G1/2	G3/4	G3/4	G1	G1	G1	DN32	DN40	DN50	DN65	DN65	
Water-cooled type W (AT 20°C)	800L/H 1.5~4bar G1/2	1500L/H 1.5~4bar G3/4	1800L/H 1.5~4bar G3/4	2600L/H 1.5~4bar G1	3200L/H 1.5~4bar G1	7m³/h 1.5~4bar DN40	12m³/h 1.5~4bar DN50	17m³/h 1.5~4bar DN65	24m³/h 1.5~4bar DN65	32m³/h 1.5~4bar DN80	42m³/h 1.5~4bar DN100	
Dimension(W) cm	45*70 *160	55*75 *175	55*75 *175	65*85 *190	65*85 *190	80*120 *185	80*120 *185	150*100 *185	200*145 *205	250*145 *225	300*160 *225	
Weight kg	180	195	260	320	390	620	820	1100	1350	1680	2250	
Power MAX 380V 50HZ	6.5kW	9kW	11.5kW	16kW	23kW	37kW	55kW	85kW	130kW	178kW	280kW	
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											

# SUNDI-5系列

Model	SUNDI-555WV	SUNDI-575WV	SUNDI-5A10WV	SUNDI-5A15WV	SUNDI-5A25WV	
Temp range	-45°C~+300°C					
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°C					
Material temp accuracy	± 1°C					
Heating power kW	5.5	7.5	10	15	25	
Cooling capacity kW at	250°C	5.5	7.5	10	15	25
	100°C	5.5	7.5	10	15	25
	0°C	5	7	10	15	25
	-20°C	2.9	4.2	6	11	16
	-40°C	0.9	1.5	2	3.8	4.7
Circulation pump max L/min bar	35	50	60	110	150	
	1.2	1.2	1.5	1.5	1.5	
Compressor	Emerson copeland / DANFOSS					
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、 R507C					
Connection size	G3/4	G1	G1	G1	DN32 PN10	
Water-cooled type W (AT 20°C)	1500L/H 1.5~4bar G3/4	1800L/H 1.5~4bar G3/4	2600L/H 1.5~4bar G1	3200L/H 1.5~4bar G1	7m <sup>3</sup> /h 1.5~4bar DN40	
Dimension(W) cm	55*70*175	55*70*175	65*85*190	65*85*190	80*120*185	
Weight kg	245	285	320	360	420	
Power MAX 380V 50HZ	9.5kW	12kW	17kW	24kW	37kW	
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