CHILLER Gas refrigeration
LQ Series



The use of gas (non-corrosive) cooling: such as dry compressed air, nitrogen, argon and other normal temperature gas into the LQ series equipment, the gas can reach the target low temperature, supply the demand test components or heat exchangers

Model	LQ4-1.5W	LQ4-3W	LQ4-6W	LQ4-8W	LQ8-1.5W	LQ8-2W	LQ8-5W	LQ8-8W	LQ11-2W	LQ11-4W	LQ11-6W	LQ11-10W
Gas flow	15m³/h	30m³/h	60m³/h	100m³/h	15m³/h	30m³/h	60m³/h	100m³/h	15m³/h	30m³/h	60m³/h	100m³/h
Inlet temp	35℃											
Dew point	≤-20℃											
Temp range	-40℃~0℃				-80℃~-40℃				-110℃~-80℃			
Control system	Feedback PID + Our special dynamic control calculation, PLC controller											
Communication protocol	MODBUS RTU protocol RS 485 interface											
Pressure monitoring	Evaporator inlet/outlet anti-freeze blockage pressure monitoring protection											
Defrost control	Defrost control based on pressure monitoring											
Cooling capacity	0.5kW @-35℃	1kW @-35℃	1.7kW @-35℃	3.4kW @-35℃	0.7kW @-75℃	1.4kW @-75℃	2.8kW @-75℃	4.6kW @-75℃	0.7kW @-105℃	1.5kW @-105℃	2.9kW @-105℃	4.9kW @-105℃
Heat exchanger material	SUS304											
Gas inlet/outlet size	NPT1/2	NPT1/2	NPT1	DN40	NPT1/2	NPT1/2	NPT1	DN40	NPT1/2	NPT1/2	NPT1	DN40
Condensing method	Direct cooling											
Drain outlet size	Rc1/2	Rc1/2	Rc1/2	Rc1/2	Rc1/2	Rc1/2	Rc1/2	Rc1/2	Rc1/2	Rc1/2	Rc1/2	Rc1/2
Display and record	7-inch color touch screen, temperature curve display and logging											
Safety protection	Self-diagnostic system with chiller overload, high/low pressure protection, thermal protection, and multiple safety features											
Compressor	Rotary / piston / scroll compressors											
Refrigerant	R454C/R290/CO2/R410A								Mixed refrigerant			
Cooling water flow /interface(≤32℃)	800L/H ZG1/2	1000L/H ZG1/2	2400L/H ZG1	3000L/H ZG1	900L/H ZG1/2	1200L/H ZG1/2	2400L/H ZG1	4000L/H DN32	800L/H ZG1/2	1000L/H ZG1/2	2000L/H ZG1	2600L/H ZG1
Power supply 380V/50Hz MAX	1PH 220V 1.5kW	2kW	4kW	6kW	1PH 220V 2.3kW	3kW	7.5kW	12kW	1PH 220V 1.5kW	3.2kW	5kW	8kW
Dimensions cm	55*100 *170	80*120 *185	100*150 *185	120*150 *185	80*120 *185	80*120 *185	100*150 *185	120*150 *185	55*100 *170	80*120 *185	100*150 *185	120*150 *185
Shell material	Cold rolled steel powder coating(RAL7035)											
Transfer pump	Optional recovery transfer pump											
Explosion-proof	Isolation type Exd IICT4, ExdIIBT4											

CHILLER Gas refrigeration
AI Series



※ Used in high and low temp testing of semiconductor equipment
※ Electronic equipment high temperature and low temperature thermostat testing cold and heat sources
※ Independent refrigeration circulating air units
※ Can work continuously for a long time, automatic defrost, it will not affectthe storage temperature during defrosting
※ Modular design, easy replacement of standby machine
※ Solve the problem of frequent opening and closing, and frosting of evaporation system; Evaporation is not affected during the defrosting
※ It is simple to build a set of high and low temp constant temp room

Model		AI-6535/AI-6535W	AI-8035W	AI-1055W
Temperature range		-65℃ ~ +125℃	-80℃ ~ +125℃	-105℃ ~ +125℃
Control mode		PID Adaptive controller		
Communication protocol		MODBUS RTU Protocol, RS 485 Interface		
Temperature feedback		Temperature feedback PT100 (inlet temperature, outlet temperature)		
Operation panel		7-inch touch screen, show temp curve/ EXCEL date output		
Temperature accuracy		±0.1℃ (Steady state outlet temperature)		
Heating power		3.5kW	3.5kW	3.5kW
Cooling capacity	125℃	3.5kW	3.5kW	3.5kW
	0℃	3.5kW	3.5kW	3.5kW
	-20℃	3kW	3.5kW	3.5kW
	-40℃	2.1kW	2.5kW	3.5kW
	-60℃	1kW	2.1kW	3kW
	-75℃		1kW	2kW
	-95℃			1kW
Circulating air flow		550m³/h	550m³/h	550m³/h
Inlet and outletair intertace		DN125	DN125	DN125
Compressor		Emerson Copeland scroll flexible compressor		
Safety protection		Self-diagnosis function; Phase sequence protection. freezer overload protection; high pressure switch. overload relay. thermal protection device.		
Defrosting device		There are installed defrosting device and condensate drain inside		
Continuous running		Running continuously		
Timing operation		Can set timed start and stop time		
Refrigerant		R454C/R290/CO2/R23	R454C/R290/CO2/R508B	R454C/R290/CO2/R23/R14
Water-cooled		1200L/H 1.5bar~4bar	1600L/H 1.5bar~4bar	2600L/H 1.5bar~4bar
Dimension cm		55*100*175	55*100*175	70*100*175
Weight		280kg	300kg	360kg
Shell material		Cold rolled steel plate with plastic spraying RAL7035		

CHILLER Gas refrigeration
AES Series



The jet flow high and low temperature impact tester provides precise and rapid ambient temperature for chips, modules, integrated circuitboards, electronic components, etc. It is an indispensable instrument for electrical performance test, failure analysis and reliability evaluation of products.

Compared to the traditional thermostat, there are several features:

Temperature range: -120℃~+225℃
The rising and cooling rate is very fast, +150℃~-55℃<10 seconds
Maximum atmospheric discharge:30m^3/h
Real-time monitoring of the measured IC real temperature, closed-loop feedback, real-time adjustment of gas temperature
Controllable rise and fall time, programmed operation, manual touch remote control
Test conditions: ambient temperature +20℃, 30m^3/h, 5Bar, compressed air or ammonia gas

Model	AES-8035
Temperature range	-80℃ ~ 225℃ (Adjustable)
Heating power	3kW
Air cooling handing	≤500LPM(30m³/H)
Air requirements	Temp: < 35℃ Pressure:0.5 ~ 1MPa Air dew point: < 10℃ Solid particle size: < 0.1μm aAir oil content Max:0.01mg/m³
Connection size	Inlet PT1/2
Temp monitoring	Outlet temperature：Type T Thermocouple
	Workpiece temperature：Type T Thermocouple, Type K Thermocouple
Air flow monitoring	Gas flow sensor
Display	Outlet Temperature Display, Workpiece Temperature Display, Supply Flow Display
Operation panel	HMI
Controller	PLC control and supports pre-set multi-stage program control
Power	MAX 6kW 220V 50HZ/60HZ
High-temp cooling	Possess high-temperature 225℃ direct cooling technology to meet the target and quickly cool down during high-temperature operation.
Display function	Performance Parameter Test and Display (1) Spray nozzle and workpiece temperature display (on display screen); (2) Supply air flow rate display (via gas flow meter). Operating Condition Indication (1) Power on/off status; (2) Unit operating status; (3) Alarm value display and recording; buzzer alarm prompt.

AESR Series

Model	AESR-8035 AESR-8035C
Temperature range	-80℃~+225℃
Temperature stability	±0.1℃ (outlet steady state)
Cooling method	Air cooled
Temp control method	Outlet temperature (Type T thermocouple)/ Workpiece temperature (Type T, Type K thermocouple)
Refrigerant	R744/R508B
Ambient temperature	20℃ ~ 30℃
Ambient humidity	30%RH ~ 70%RH
Altitude m	Below 3,000
Gas type	Compressed air
Air requirements	Temp: < 35℃, Pressure:0.5 ~ 1MPa, Dew point temp: < 10℃, Solid particle size: < 0.1μm , Max oil content:0.01mg/m³
Heating power W	3000
Air handing	30m³/h
Pressure range	0.6~0.8Mpa
Heat exchanger type	Plate heat exchanger
Connection(inlet)	Rc1/2
Connection(outlet)	Rc3/8
Voltage(Customisable)	1~220V±10 [%] ,50Hz±5Hz
High-temp protection	Temperature sensor
High-pressure protection	Pressure sensor
Compressor overload	Breaker
Flow rate protection	Flow meter
Residual current protection	Residual current device
Dimension cm	51*78*110
Weight kg	260

CHILLER Gas refrigeration
AET Series



Compressed air enters the gas rapid temperature change testing machine, which is equipped with a dryer. The gas is pre dried to a dew point temperature of -70°C or below and then cooled, heated and controlled to provide stable flow, pressure and constant temperature gas. The temperature of the target object is controlled (such as various temperature control chucks, chamber environments, heat support plates, material shuttles, chambers, electronic components, etc.), the temperature of the process can be controlled according to the temperature sensor on the remote chuck, the temperature of the output gas can be automatically adjusted.

Model	AET-4025 AET-4025C	AET-4050 AET-4050C	AET-4095 AET-4095C	AET-7025 AET-7025C	AET-7050W AET-7050WC	AET-7095W AET-7095WC
Temperature range	-40℃ ~ 250℃	-40℃ ~ 250℃	-40℃ ~ 250℃	-75℃ ~ 250℃	-75℃ ~ 250℃	-75℃ ~ 250℃
Temp accuracy	±0.1℃（Steady state outlet temperature）					
Cooling method	Air-cooled	Air-cooled	Air-cooled	Air-cooled	Water-cooled	Water-cooled
Temp control method	Control the outlet air temperature/the material temperature					
Refrigerant	R454C/R290/CO2			R454C/R290/CO2/R508B		
Ambient temp	20℃ ~ 30℃					
Ambient humidity	30%RH ~ 70%RH					
Height m	≤ 3,000					
Gas type	Compressed air					
Air requirements	Air filter < 1um, Air oil content < 1mg/m³, Air dew point ： < 10℃ , Pressure 6bar~8bar					
Heating power	3000W	3000W	4000W	3000W	3000W	4000W
Air handing	25m³/h	50m³/h	95m³/h	25m³/h	50m³/h	95m³/h
Pressure range	0.6~0.8Mpa					
Evaporator	Plate Heat Exchanger					
Connection size(Inlet)	Rc1/2	Rc1/2	Rc3/4	Rc1/2	Rc1/2	Rc3/4
Connection size(Oulet)	Rc3/8	Rc1/2	Rc3/4	Rc3/8	Rc1/2	Rc3/4
Voltage	1PH AC220V±10 [%]					
High-temp protection	Temperature sensor					
High-pressure protection	Pressure sensor					
Compressor overload	Circuit breaker					
Flow protection	Flow meter					
Earth leakage protection	Earth leakage circuit breaker					
Dimension cm	43*46*112	52*57*132	60*63*160	54*69*112	65*85*132	75*95*160
Weight	140kg	190kg	260kg	180kg	250kg	330kg

AETR Series

Model	AETR-4025 AETR-4025C	AETR-4050 AETR-4050C	AETR-4095 AETR-4095C	AETR-7025 AETR-7025C	AETR-7050 AETR-7050C	AETR-7095 AETR-7095C
Temp range	-40℃~+250℃	-40℃~+250℃	-40℃~+250℃	-75℃~+250℃	-75℃~+250℃	-75℃~+250℃
Temp stability	±0.1 (outlet steady state)					
Cooling method	Air cooled	Air cooled	Air cooled	Air cooled	Air cooled	Air cooled
Temp control method	Control outlet temperature/material temperature					
Refrigerant	R744	R744	R744	R744/R508B	R744/R508B	R744/R508B
Ambient temp	20 ~ 30	20 ~ 30	20 ~ 30	20 ~ 30	20 ~ 30	20 ~ 30
Ambient humidity	30 ~ 70	30 ~ 70	30 ~ 70	30 ~ 70	30 ~ 70	30 ~ 70
Height m	Below 3,000	Below 3,000	Below 3,000	Below 3,000	Below 3,000	Below 3,000
Gas type	Compressed air	Compressed air	Compressed air	Compressed air	Compressed air	Compressed air
Heating power W	3000	3000	4000	3000	3000	4000
Air handing	25m³/h	50m³/h	95m³/h	25m³/h	50m³/h	95m³/h
Air requirements	Air filter < 1um air oil content < 1mg/m³ Air dew point : < 10℃ Pressuer 6bar~8bar					
Pressure range	0.6~0.8Mpa	0.6~0.8Mpa	0.6~0.8Mpa	0.6~0.8Mpa	0.6~0.8Mpa	0.6~0.8Mpa
Heat exchanger type	Plate heat exchanger					
Connection(inlet)	Rc1/2	Rc1/2	Rc3/4	Rc1/2	Rc1/2	Rc3/4
Connection(outlet)	Rc3/8	Rc1/2	Rc3/4	Rc3/8	Rc1/2	Rc3/4
Voltage	1~220V±10%,50Hz±5Hz		3~380V±10% 50Hz±5Hz	1~220V±10%, 50Hz±5Hz	3~380V±10%,50Hz±5Hz	
High-temp protection	Temperature sensor					
High-pressure protection	Pressure sensor					
Compressor overload	Breaker					
Flow rate protection	Flow meter					
Residual current protection	Residual current device					
Dimension cm	54*69*112	65*93*132	60*63*160	54*85*112	65*93*132	75*105*160
Weight kg	140	190	260	180	250	330

CHILLER Gas refrigeration

High-Speed Optical Module Thermal Analyzer

High and Low Temperature Test System for Semiconductor Test Platforms. Thermal Source for High/Low Temperature and Constant Temperature Testing of Electronic Devices.

Non-contact thermal testing
Eliminates mechanical stress on modules, ideal for delicate or specialty packages

Uniform thermal field, circulating air envelops the module with minimal temperature gradient

No wear risk, avoids repeated mechanical clamping issues common in contact-type TEC systems

Compact design, plug-and-play, easy to relocate

Highly interactive with test systems, controllable Tc and Tj (requires chip junction temperature signal input)



Model	AET-50
Temperature range	0℃~+70℃
Temp accuracy	±0.5℃
Temp rise and fall capability	Supports rapid cool-down directly from 70°C operating temperature, enabling fast temperature reduction while the device is under high-temperature operation.
Cooling capacity	50W@0℃
Control panel	4.3-inch touch screen
Controller	PLC (Programmable Logic Controller) ,standard with MODBUS RTU protocol and RS485 interface, with other communication protocols available as options.
Power supply	single-phase 220V 50Hz
Dimensions (mm)	490*255*285
Operation mode	Direct blow/circulating air
Safety protection	Equipped with a thermal protection device to ensure equipment safety

1.Rated test conditions: dry-bulb 20 °C; wet-bulb 16 °C.
2.Data are for selection reference only and subject to change without notice; nameplate parameters prevail.
3.For special non-standard customization please contact us.
4.Water-cooled units require a closed cooling tower or chiller water supply. If an open cooling tower is used a filter must be installed. Supply pressure: 1.5–4 bar.