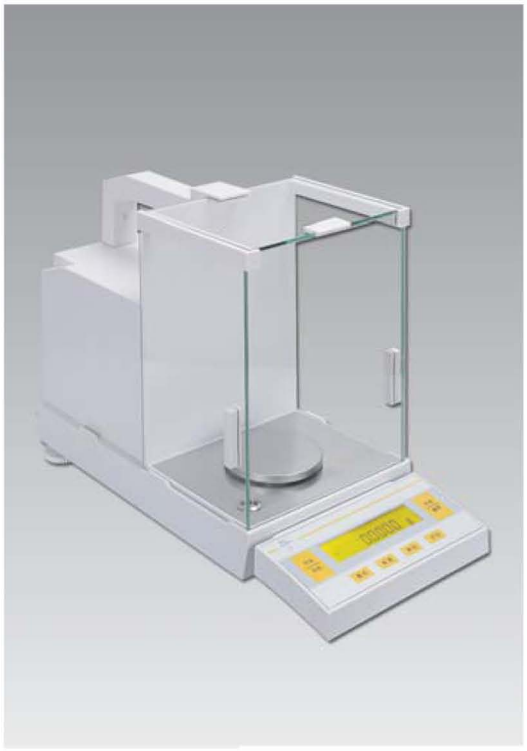
Kino



Products from USA KINO Industry Co., Ltd

Balance

Analytical Instrument

Pre-treatment Instrument

Physical Property Measurement Instrument

www.uskino.com

High Performance Liquid Chromatography

LC-1620 System

High-performance for long time operation

- LC-1620 system incorporates advanced and innovative design elements which endow it high reliability and accuracy for long time operation. The working mode of LC-1620 pump is in-parallel. It offers improved accuracy and duration in LC-1620 system. The flow cell of LC-1620 detector is also redesigned and optimized, which offers excellent S/N ratio performance.
- The whole design and manufacturing process is performed by Chinese engineers. From manufacturing to installation, the system arrives from the factories with restrict validation and test. Its innovative design, engineering and manufacturing features translate into the high accuracy, reliability and quality.

LC-1620 Pump	Flow rate range	0.001-9.999 mL/min
	Flow rate accuracy	≤±0.5%(1mL/min, water, room temperature)
	Flow rate stability	RSD≤0.08%(1mL/min, water, room temperature)
	Peak operating pressure	45MPa
	Power source	110V/220V

Flexible Configuration

- LC-1620A system offers analytical flexibility. It provides a comprehensive selection that can be combined to make up a variety of systems for different demands.

Choice of pumping system

- Isocratic system
- High-pressure binary gradient system

Choice of detection system

- UV Detector for routine analysis
- RID for universal detection in isocratic analysis, especially necessary in GPC system
- ELSD for universal detection , especially necessary in standard methods in pharmacopeia of China

LC-1620 UV Detector	Lamp	D_2
	Wavelength range	190-700nm
	Baseline noise	$\leq\pm0.8\times10^{-5}$AU
	Baseline drift	$\leq1\times10^{-4}$AU/h
	Limit of detection	0.4×10^{-8} g/mL(Naphthalene/methyl alcohol solvent)
	linearity range	$\geq10^4$
	Wavelength repeatability	0.1nm
	Wavelength accuracy	±1nm
	Power source	110V/220V

Features and benefits

- All maintenance parts are accessible from the front panel for quick replacement without disassembling instrument.
- The monitoring system will stop the pump if pre-limit pressure is exceeded
- All components are controlled intelligently in workstation
- On line detect all signal curves, such as the pressure curve, gradient curve and solvent consume warning
- The interface is open design that it is compatible with other universal workstation.

Gas Chromatography

GC1120

Specifications

Column oven

Temperature range:
ambient temperature +7℃~ 400℃ (increment 1℃)
Temperature control accuracy: better than ±0.1℃
Temperature program ramps : 5 ramps in total
Program setting : 0.1℃~40℃/min(increment 0.1℃)
Maximum run time : 655 minutes(increment 1min)

Hydrogen flame ionization detector (FID)

Minimum detectable level: $D_t \leq 8\times10^{-12}$ g/s (n-hexadecane)
Drift: $\leq 6\times10^{-13}$ A/h
Linear dynamic range: $\geq 10^6$
Maximum temperature: 400℃

Thermal conductivity detector (TCD)

Sensitivity: S≥5000mv.ml/mg (n-hexadecane)
Tiptop Sensitivity: S≥10000mv.ml/mg (with amplifying circuit)
Noise: ≤20μV
Drift: ≤30μV/h
Linear dynamic range: $\geq 10^4$
Maximum temperature: 400℃

Flame photometric detector (FPD)

Minimum detectable level:
$\leq 1\times10^{-11}$ g/s(P) (Parathion-methyl)
$\leq 1\times10^{-10}$ g/s(S) (Parathion-methyl)

Electron capture detector (ECD)

Minimum detectable level: $\leq 1\times10^{-13}$ g/ml (γ-666)
Linear dynamic range: $\geq 10^3$

Nitrogen phosphorus detector (NPD)

Minimum detectable level:
$\leq 5\times10^{-12}$ g/s(N) (Diphenyl-Diazene)
$\leq 5\times10^{-13}$ g/s(P) (Malathion)

Instrument operational requirement

Power source: 220V~±22V 50Hz ± 0.5Hz
Power: ≤2000W
Ambient temperature: +5℃~ +35℃
Relative humidity: ≤85%

UV-VIS Spectrophotometer(Double Beam)

UV2900

Function

contorl by PC totally

scan automcatic

new optical system and circuit design

spectral bandwidth 0.1-5.0 nm continuous adjustable and set

Function

- Photometric measurement:Use fixed wavelength to measure absorption,transmittance and concentration
- Spectrum scan:Scan spectrum after software option
- Quantitative determination
- Multi-wavelength test:Up to ten test wavelengths
- Dynamics measurement (time scanning)
- DNA/ Protein concentration measurement

Feature

- Long-term Stability:High quality optical components ensure long-term stability
- Low stray light:Advanced optical system,low-noise electric circuit system and high quality optical components ensure low stray light and the more accurate high concentration measurement
- User friendly interface：wide screen shows data,graphics and curve more clearly
- light source easily replaced：on-site and no adjustment needed
- Easily upgraded：Many optional accessories enhance the flexibility and the measurement range of the instrument.

Model	UV2900
Optical System	Double Beam
Spectral Bandwidth	0.1-5.0nm continuous adjustable Can be defined more spectral bandwidth （0.1、0.2、0.5、1.0、2.0、3.0、4.0、5.0nm）
Wavelength Range	190~900nm
Wavelength Accuracy	±0.3nm
Wavelength Repeatability	≤0.1nm
Photometric Range	A: -4.0~4.0 Abs
Photometric Accuracy	±0.3%T
Photometric Repeatability	≤0.1%T
Stray Light	≤0.015%T（220nmNaI; 360nm$NaNO_2$）
Baseline linearity	±0.001 Abs
Baseline drift	≤±0.0004 Abs/h (500nm, after preheating 2h)
Noise	±0.0004 Abs
Dimensions	600×505×240mm

UV-VIS Spectrophotometer(Double Beam)

UV2800

Function

UV2800 is a double beam UV-VIS Spectrophotometer with a widescreen display and scanning function. New optical system and circuit system make the instrument achieve high-resolution, low stray light,long-term stability, high-SNR. This instrument can meet requirements of users in the multi-level analysis application . UV-VIS Spectrophotometer can achieve more powerful function with an aid with the pc software.

Function

- Photometric measurement:Use fixed wavelength to measure absorption,transmittance and concentration
- Spectrum scan:Scan spectrum after software option
- Quantitative determination
- Multi-wavelength test:Up to ten test wavelengths
- Dynamics measurement (time scanning)
- DNA/ Protein concentration measurement

Feature

- Long-term Stability:High quality optical components ensure long-term stability
- Low stray light:Advanced optical system,low-noise electric circuit system and high quality optical components ensure low stray light and the more accurate high concentration measurement
- User friendly interface：wide screen shows data,graphics and curve more clearly
- light source easily replaced：on-site and no adjustment needed
- Easily upgraded：Many optional accessories enhance the flexibility and the measurement range of the instrument.

Model	UV2800
Wavelength Range	190~1100nm
Spectral Bandwidth	1.8nm
Wavelength Accuracy	±0.3nm
Wavelength Repeatability	0.2nm
Photometric Accuracy	±0.3%T
Photometric Repeatability	0.1%T
Stray Light	≤0.05%T
Baseline Linearity	±0.001A
Baseline Drift	0.0005A/h
Optional	Software

UV-VIS Spectrophotometer(dual split-beam)

UV2600
UV2400

Function

UV2600 is a dual Split-beam UV-VIS Spectrophotometer with scanning function. New optical system and circuits system make the instrument achieve high-resolution, low stray light,long-term stability, high-SNR. This instrument can meet requirements of users in the multi-level analysis application . UV-VIS Spectrophotometer can achieve more powerful function with an aid with the pc software.

Function

- Photometric measurement
- Spectrum scan
- Quantitative determination
- Multi-wavelength test
- Dynamics measurement (time scanning)
- DNA/ Protein concentration measurement

Feature

- long-term Stability
- low stray light
- User friendly interface
- light source easily replaced
- Easily upgraded

Model	UV2600	UV2400
Wavelength Range	190~1100nm	190~1100nm
Spectral Bandwidth	1.8nm	1.8nm
Wavelength Accuracy	±0.3nm	±0.5nm
Wavelength Repeatability	0.2nm	0.2nm
Photometric Accuracy	±0.3%T	±0.3%T
Photometric Repeatability	0.1%T	0.1%T
Stray Light	≤0.05%T	≤0.05%T
Baseline Linearity	±0.002A	±0.002A
Baseline Drift	0.001A/h	0.001A/h
Optional	Software	Software

VIS Spectrophotometer

V2200
V2000

Visible Spectrophotometer

Vseries Spectrophotometers are a type of single beam Vis Spectrophotometers, which can be easily operated, and is suitable for samples qualitative and quantitative analysis.

	V2000	V2200
Optical Performance		
Spectral Bandwidth	4nm	2nm
Wavelength Range	335 ~ 1000nm	325 ~1100nm
Wavelength Accuracy	±2nm	±1.0nm(Auto-calibration)
Wavelength Repeatability	1nm	0.5nm
Stray Light	≤0.5%T(360nm)	≤0.2%T(360nm)
Photometric Performance		
Photometric Range	T:0~199.9% , A:-0.3~2.5Abs, F:0~9999, C:0~9999	T:-1.0~200.0% , A:-0.5~3.000Abs, F:0~9999, C:0~9999
Photometric Accuracy	±0.5%T	±0.5%T
Photometric Repeatability	0.2%T	0.2%T
Stability	≤0.5%T/5min	±0.002A/h
Primary Function		
Basic Measurement	Single wavelength and concentration measurement	Single wavelength and concentration measurement
Data Output	RS-232C, digital output	USB, LPT serial, digital output
Primary Specification		
Display Mode	LED displays	128 X 64 LCD
Light Source	Tungsten lamp (socket type, 20W / 12V, 2000h)	Tungsten lamp (socket type, 20W / 12V, 2000 hours)

UV-VIS Spectrophotometer

UV2000 / UV2200

Ultraviolet Visible Spectrophotometerter

UV2000/UV200 Spectrophotometers are suitable for qualitative and quantitative analysis in many areas, such as Petroleum, Chemicals, Dye, Food, Biology, Pharmacy, Environment Protection, Education, Medical Research, Clinical Laboratory, Material Sciences and so on. They are a kind of essential analytical instrument, and could fit requirements of analysis workings.

	UV2000	UV2200
Optical Performance		
Spectral Bandwidth	4nm	2nm
Wavelength Range	200 ~1000nm(increment 0.1nm)	190-1100nm(increment 0.1nm)
Wavelength Accuracy	±2.0nm(Auto-calibration)	±1.0nm(Auto-calibration)
Wavelength Repeatability	1.0nm	0.5nm
Stray Light	≤0.5%T(at220and340nm)	≤0.15%T(at220nm)
Photometric Performance		
Photometric Range	T:-1.0~200.0% , A:-0.5~3.000Abs, F:0~9999, C:0~9999	T: -1.0 ~ 200.0%T , A: -0.5 ~ 3.000Abs, F: 0 ~ 9999, C: 0 ~ 9999
Photometric Accuracy	±0.5%T(0~100%T)	±0.5%T
Photometric Repeatability	0.2%T	0.2%T
Stability		±0.002AU/h
Primary Function		
Data Output	USB interface,LPT printer interface	USB interface,LPT printer interface
Software		UV-Solution workstation software
Primary Specification		
Light Source	Tungsten lamp (socket type, 20W / 12V, 2000 hours) Deuterium lamp (1000 hours)	

Auto Internal Calibration Electronic Balance

FB Balance

Electronic Balance

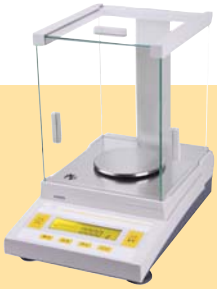
FB series products are the auto internal calibration electronic analytical balance based on electric magnetic force balanced principle. Products have many characteristics, such as high accuracy and excellent adaptability etc., and have lots of functions such as built-in dual-weight balanced calibration, digital multipoint integral time calibration, counting function, units shifting etc. The product of the series is equipped with standard RS232 data interface, which makes the balance access to computers or printers. It is possible to control the quality on - the - spot with our products, this series products are widely used in pharmaceutical research institutes, universities, corporations, road construction and the departments of defense,etc.

- High-sensitivity electric magnetic force balance principle for excellent resolution
- Built-in dual-weight balanced calibration technology for excellent accuracy
- Digital multi-point linear calibration, to achiave excellent balance calibration
- Internal weight calibration technology, to implement the periodical calibration and adjustment without dismantling the product
- Pillar-free transparent glass draft shields to get comfortable operation with enlarged weighing space
- Advanced design with SMT and switching power supply technology, which reduces dimensions of the rear sensor, and leads to a compact appearance
- Six-key integrated display panel for easy operation
- Big handles for easy movement

	FB124	FB224
Weighing Capacity (g)	120	220
Readability (mg)	0.1	0.1
Repeatability (≤mg)	±0.1	±0.1
Linearity (≤mg)	±0.2	±0.2
Pan Size (mm)	Φ90	Φ90

	FB223	FB323	FB423
Weighing Capacity(g)	220	320	420
Readability(mg)	1	1	1
Repeatability (≤mg)	±1	±1	±1
Linearity (≤mg)	±2	±2	±2
Pan Size (mm)	Φ90	Φ90	Φ90

Electronic Balance



FA/JA

Electronic Analytical Balance

- Electric magnetic force balance principle
- Auto zero-tracking
- Dynamic temperature compensation
- Tare in the whole range
- LCD display
- Function of pieces counting
- RS232 communication
- Unit transformation(g oz ct kg lb)

	FA124	FA224
Weighing Capacity (g)	120	220
Readability (mg)	0.1	0.1
Repeatability (≤mg)	±0.1	±0.1
Linearity (≤mg)	±0.2	±0.2
Pan Size (mm)	Φ90	Φ90

Electronic Precision Balance

- Electric magnetic force balance principle
- Dynamic temperature compensation
- Tare in the whole range
- LCD display
- Built-in under-hook
- RS232 communication
- Unit transformation(g oz ct kg lb)

	JA1003	JA2003	JA3003	JA5003
Weighing Capacity (g)	100	200	300	500
Readability (g)	0.001	0.001	0.001	0.001
Repeatability (≤g)	±0.001	±0.001	±0.001	±0.001
Linearity (≤g)	±0.002	±0.002	±0.002	±0.002
Pan Size (mm)	Φ110	Φ110	Φ110	Φ110

- Patent sensor technology-ceramic variable capacitance
- Temperature compensation
- Remote control via RS232C interface
- Over-loading/impact protection

	JA12002	JA21002	JA31002	JA50002
Weighing Capacity (g)	1200	2100	3100	5000
Readability (g)	0.01	0.01	0.01	0.01
Repeatability (≤g)	±0.01	±0.01	±0.01	±0.01
Linearity (≤g)	±0.02	±0.02	±0.02	±0.02
Pan Size (mm)	Φ158	Φ158	Φ158	Φ158

Electronic Balance

MP Balance

Electronic Balance

- LCD display
- Auto-calibration
- Built-in under-hook(optional)
- Tare in the whole range
- RS232C communication (optional)
- Weighing/piece counting/ percentage weighing

	MP1002	MP2002	MP3002	MP4002	MP5002
Weighing Capacity (g)	100	200	300	400	500
Readability (g)	0.01	0.01	0.01	0.01	0.01
Repeatability (≤g)	±0.01	±0.01	±0.01	±0.01	±0.01
Linearity (≤g)	±0.02	±0.02	±0.02	±0.02	±0.02
Pan Size (mm)	Φ125	Φ125	Φ125	Φ125	Φ125

	MP2001	MP6001	MP10001	MP12001
Weighing Capacity (g)	200	600	1000	1200
Readability (g)	0.1	0.1	0.1	0.1
Repeatability (≤g)	±0.1	±0.1	±0.1	±0.1
Linearity (≤g)	±0.2	±0.2	±0.2	±0.2
Pan Size (mm)	Φ125	Φ125	Φ125	Φ125

	MP21001	MP31001	MP51001	MP61001
Weighing Capacity (g)	2100	3100	5100	6100
Readability (g)	0.1	0.1	0.1	0.1
Repeatability (≤g)	±0.1	±0.1	±0.1	±0.1
Linearity (≤g)	±0.2	±0.2	±0.2	±0.2
Pan Size (mm)	174×143	174×143	174×143	174×143

	MP2000	MP6000	MP10K
Weighing Capacity (g)	2000	6000	10000
Readability (g)	1	1	1
Repeatability (≤g)	±1	±1	±1
Linearity (≤g)	±2	±2	±2
Pan Size (mm)	174×143	174×143	174×143

Electronic Balance

JY/YP

Electronic Balance

- RS232 communication (optional)
- Double sided display (optional)
- LCD display
- Weighting setting time≤3s
- DC/AC
- Tally function
- Gram, carat, pound and ounce to convert

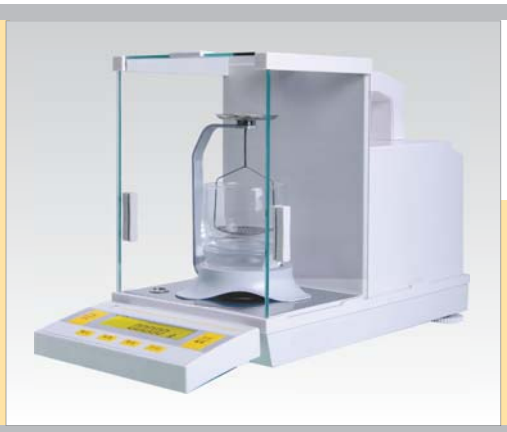
	JY1002	JY2002	JY3002	JY5002	JY6002
Weighing Capacity (g)	100	200	300	500	600
Readability (g)	0.01	0.01	0.01	0.01	0.01
Repeatability (≤g)	±0.01	±0.01	±0.01	±0.01	±0.01
Linearity (≤g)	±0.02	±0.02	±0.02	±0.02	±0.02
Pan Size (mm)	Φ128	Φ128	Φ128	Φ128	Φ128

	JY10002	JY20002	YP601N	YP1201N
Weighing Capacity (g)	1000	2000	600	1200
Readability (g)	0.01	0.01	0.1	0.1
Repeatability (≤g)	±0.01	±0.01	±0.1	±0.1
Linearity (≤g)	±0.02	±0.02	±0.2	±0.2
Pan Size (mm)	Φ128	Φ128	Φ128	Φ128

	YP2001N	YP3001N	YP5001N
Weighing Capacity (g)	2000	3000	5000
Readability (g)	0.1	0.1	0.1
Repeatability (≤g)	±0.1	±0.1	±0.1
Linearity (≤g)	±0.2	±0.2	±0.2
Pan Size (mm)	145×160	145×160	145×160

	YP6001N	YP2000N	YP6000N
Weighing Capacity (g)	6000	2000	6000
Readability (g)	0.1	1	1
Repeatability (≤g)	±0.1	±1	±1
Linearity (≤g)	±0.2	±2	±2
Pan Size (mm)	145×160	145×160	145×160

Electronic Density Balance



Electronic Density Balance

Density balances are based on electronic balance. It is suitable for measuring solid density and liquid density. Standard solid density or standard liquid density can be set before measurement. Data of samples can be read out directly. Our density balances products include three series: FA series, JA series and MP series. Different series have different range and different precision to meet different requirements of customers.

	FA1104J	FA2104J	JA3003J	JA5003J
Weighing Capacity (g)	110	210	300	500
Readability (g)	0.0001	0.0001	0.001	0.001
Repeatability (≤g)	±0.0001	±0.0001	±0.001	±0.001
Linearity (≤g)	±0.0002	±0.0002	±0.002	±0.002
Output Interface	RS232	RS232	RS232	RS232
Mass in air (g)	≥0.25	≥0.25	≥0.25	≥0.25
Aquatic buoyancy	<-0.125	<-0.125	<-0.125	<-0.125

	MP3002J	MP4002J	MP5002J
Weighing Capacity (g)	300	400	500
Readability (g)	0.01	0.01	0.01
Repeatability (≤g)	±0.01	±0.01	±0.01
Linearity (≤g)	±0.02	±0.02	±0.02
Output Interface	RS232	RS232	RS232
Mass in air (g)	≥0.25	≥0.25	≥0.25
Aquatic buoyancy	<-0.125	<-0.125	<-0.125

Viscometer

Viscometer

Viscometer

Viscometers are suitable for measuring the liquid viscose capacity and the absolute viscosity. It has been widely used to determine and measure the liquid viscosity in many application fields, such as grease, painting, pharmacy and adhesives.

Features of products:

- High measuring accuracy;
- Stable in measured display;
- Easy operation and read-out;
- Excellent anti- interferences ability.

	NDJ-1	NDJ-4
Display mode	dial	dial
Rotor speed (r/min)	6/12/30/60	0.3/0.6/1.5/3 6/12/30/60
Speed governing	Manual dived	Manual dived
Rotor	1、2、3、4	1、2、3、4
Measuring range (mPa s)	$1\sim10^5$	$10\sim2\times10^6$
Measure error (Newtonian Liquid)	±5%	±5%
Optional	0# Rotor	0# Rotor

	NDJ-5S	NDJ-8S	SNB-1
Display mode	digital	digital	digital
Rotors speed (r/min)	6/12/30/60	0.3/0.6/1.5/3 6/12/30/60	6/12/30/60
Speed governing	Intelligence	Eight level	Intelligence
Rotor	1、2、3、4	1、2、3、4	1、2、3、4
Measuring range (mPa s)	$10\sim10^5$	$10\sim2\times10^6$	$10\sim10^5$
Measure error (Newtonian Liquid)	±5%	±5%	±2%
Optional	0# Rotor	0# Rotor	0# Rotor

Thermostatic Bath

CH / DC Series

Super Thermostatic Bath

- Microprocessor for precise temperature control
- PID temperature control mode
- Pt100 temperature sensor
- Sensor-damage protection and over-temperature warning
- Temperature fluctuation: ±0.05℃
- Temperature display resolution: 0.1℃
- Pump flow-rate: 8L/min

	CH1015	CH1515	CH2015
Temperature range (℃)	5 above ambient~95	40~150	50~200
Tank cubage (L)	15	15	15
Circulation system	Internal, external	Internal	Internal
Opening size (mm)	255×180	215×180	215×180
Depth (mm)	200	200	200
General power	1500	1500	1500

Low-Temperature Thermostatic Bath

- Microprocessor for precise temperature control
- PID temperature control mode
- Fast cooling system
- Low noise and vibration
- Pt100 temperature sensor
- Water outlet for 15L,20L and 30L series
- Convenient for movement with folding handles
- Truckles with locks for 30L series

	DC-0506	DC-1006	DC-2006	DC-3006	DC-4006	DC-6506	DC-8006
Temperature range (℃)	-5~95	-10~95	-20~95	-30~95	-40~95	-65~95	-80~95
Tank cubage (L)	6	6	6	6	6	6	6
Opening size (mm)	150×150	150×150	150×150	150×150	150×150	150×150	150×150
Depth (mm)	150	150	150	150	150	150	150

	DC-0515	DC-1015	DC-2015	DC-3015	DC-4015
Temperature range (℃)	-5~95	-10~95	-20~95	-30~95	-40~95
Tank cubage (L)	15	15	15	15	15
Opening size (mm)	215×180	215×180	215×180	215×180	215×180
Depth (mm)	200	200	200	200	200

	DC-0520	DC-1020	DC-2020	DC-3020	DC-4020
Temperature range (℃)	-5~95	-10~95	-20~95	-30~95	-40~95
Tank cubage (L)	20	20	20	20	20
Opening size (mm)	250×200	250×200	250×200	250×200	250×200
Depth (mm)	200	200	200	200	200

	DC-0530	DC-1030	DC-2030	DC-3030
Temperature range (℃)	-5~95	-10~95	-20~95	-30~95
Tank cubage (L)	30	30	30	30
Opening size (mm)	270×220	270×220	270×220	270×220
Depth (mm)	270	270	270	270