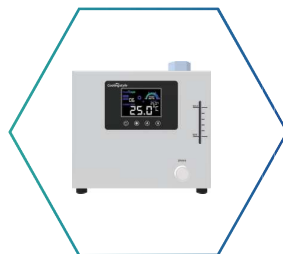




Expert of high-precision temperature control products



Shenzhen Coolingstyle Technology Co., Ltd.

Founded in Mar, 2013, Coolingstyle is a national high-tech enterprise specializing in R&D and manufacturing high precision temperature control products for a wide variety of market applications, including industrial chiller, body cooling system, micro compressors and many other fields.

Coolingstyle has completely grasped the key control technique and also possesses the capacity of industrialization design and manufacturing, Our products are known for high durability, energy efficiency and compact size. The precision of the temperature in our chillers is $\pm 0.1^{\circ}\text{C}$. We offer a wide range of highly customizable thermo control system. Our innovative engineering team has rich experience in high challenging thermal projects. We take pride in the ability of the fast response to customers' requirements, the comprehensive advice to customers' problems, the professional system solutions to customers' projects. We are determined to be the world leader in temperature control industry.

We have more than 100 patents, and we are compliant with ISO9001 and ISO14001 and other globally recognized quality certificates. Our headquarters is in Shenzhen China, we have a branch office in Dallas USA. We are finding partners all over the world.

Product display



Certificates

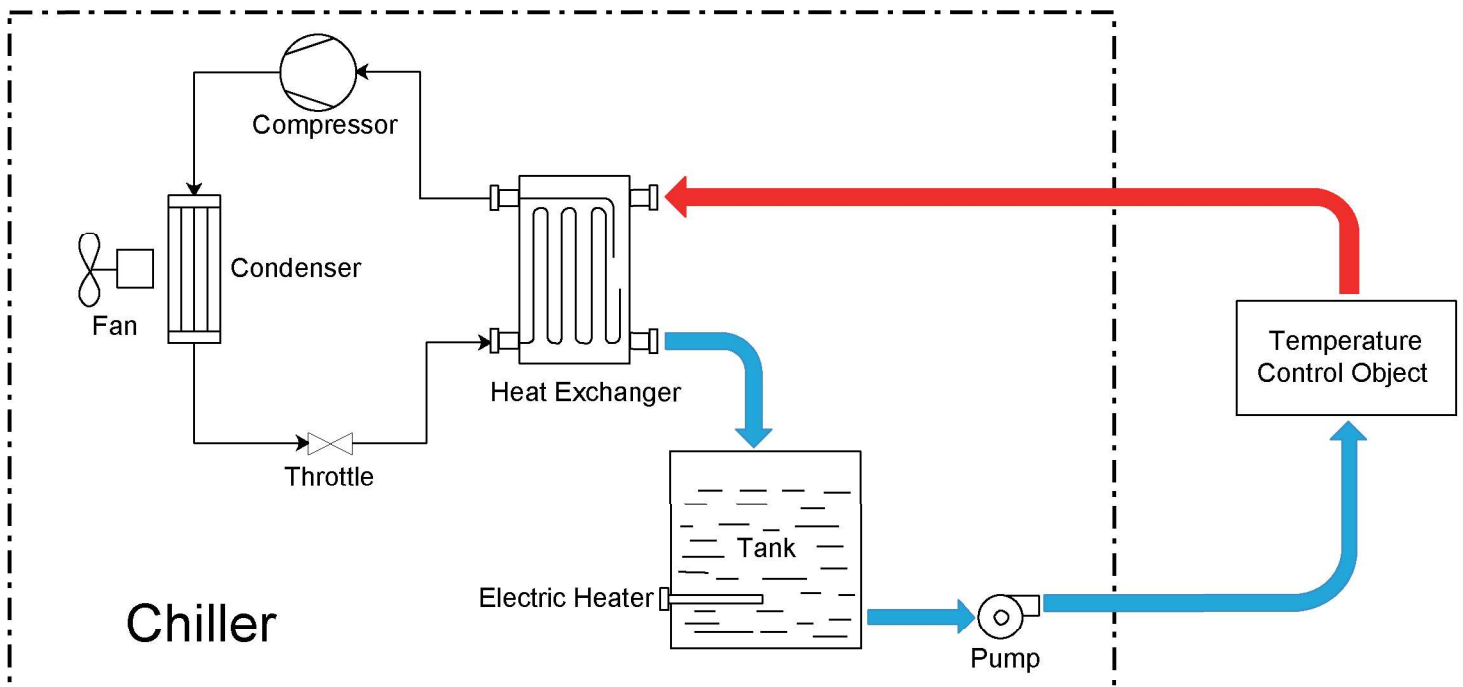


High precision industrial chiller

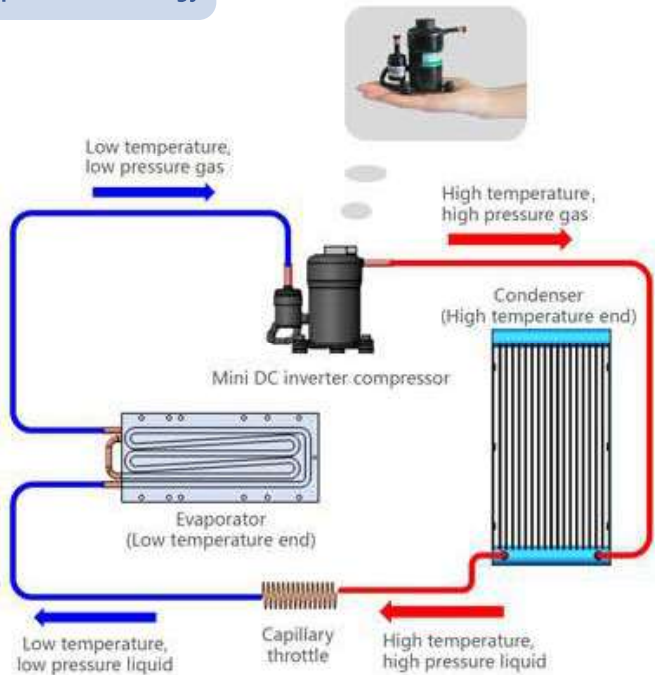
- ✦ Air-cooled type
- ✦ Compact structure, space-saving
- ✦ Can be placed in a standard case, size adaptation



Working principal



Micro compressor technology



Technology Principles

The micro-environmental refrigeration is based on the micro-compressor, and the heat is transferred from the low-temperature evaporator end to the high-temperature condenser end by reasonably matching the evaporator, condenser and corresponding throttling capillary tube, so as to achieve effective cooling of the evaporator end.

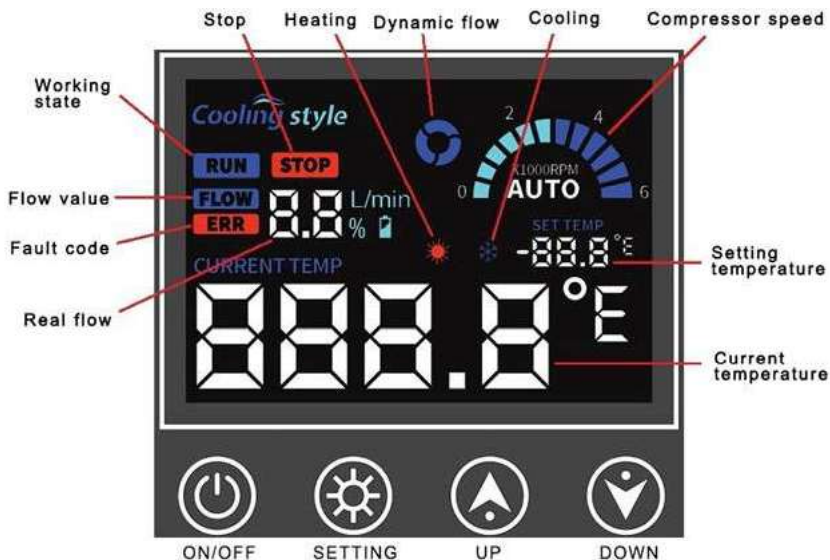
Technology Core

- Matching design of compressor, evaporator, condenser and throttle valve for micro system
- Quantitative charging of refrigerant inside the micro system
- Program control algorithm for effective and precise temperature of micro-system
- Process matching of micro system design and production

Outstanding Advantages

- Light weight, small size, suitable for portable mobile use
- Can be powered by batteries, vehicle power supplies, solar energy, etc.
- Inverter compressor control, can precisely control the temperature while effectively reducing energy consumption

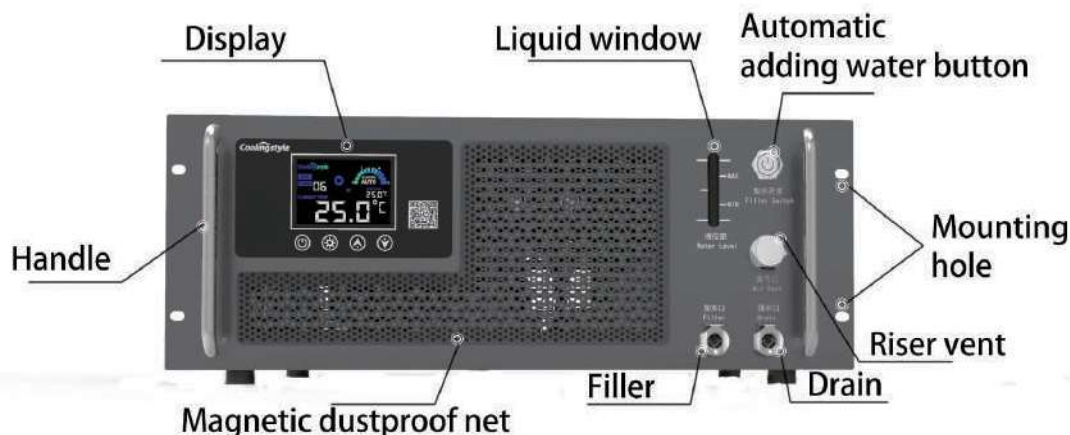
Simple operation interface



The Coolingstyle chiller display screen is divided into a display area and an operation area. The display area includes a running mark, a stop mark, a dynamic flow mark, a refrigeration mark, a high temperature alarm mark, a heating mark, a compressor speed mark, real-time water temperature, and fault marks.

At the bottom of the screen is the operation area with 4 buttons, which are on/off, setting, up and down. The buzzer will emit a short "beep" sound when it is pressed effectively, and there will be no response when it is pressed invalid.

- 1) On/off key: Press once to power on or off the chiller;
- 2) Setting button: Click to enter the setting interface. At this time, the real-time flow area on the display shows "F0", and then each time you click the setting button, the area will cycle to display "F0", "F1", "F2", "F3" four logos. "F0" means that the target temperature can be set at this time; "F1" means that the high temperature alarm value can be set at this time; "F2" means that the low temperature alarm value can be set at this time; "F3" means that the flow alarm threshold can be set at this time.

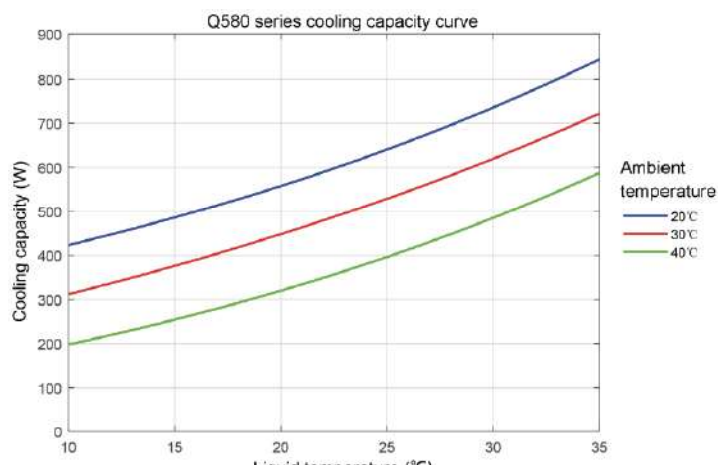
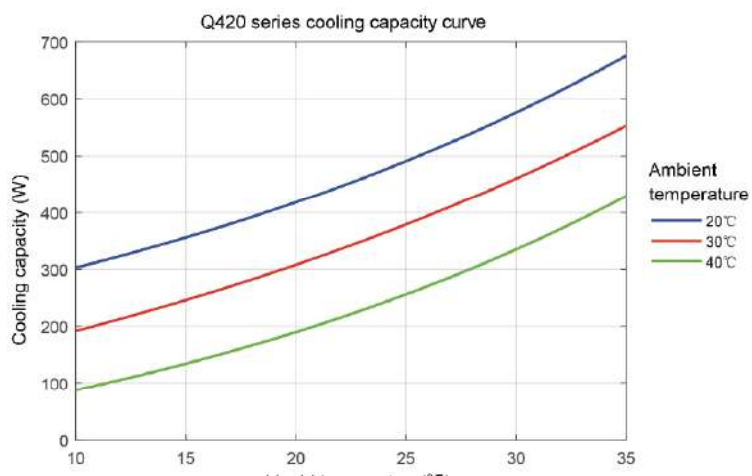


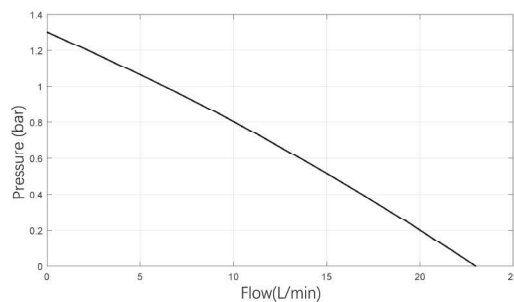
- Compact, portable, and lightweight design
- Intelligent frequency conversion for low energy consumption
- Precise temperature control of $\pm 0.1^{\circ}\text{C}$
- Flow rate alarm
- High and low temperature alarms
- Alarm signal output
- High-definition LCD screen display
- RS485 communication (optional)
- AC220V (standard), AC110V/DC24V (optional)



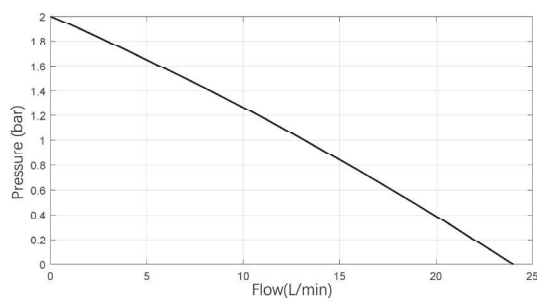
Product name		Micro chiller	Model	CS-ARC-Q420A210	CS-ARC-Q580A210
Item			Unit	Value	Value
Nominal cooling capacity			W	420	580
Application				1-10W UV 355nm and 1-20W 532nm lasers	1-15W UV 355nm and 1-30W 532nm lasers
Rated voltage/frequency			V/Hz	220V, 50/60HZ (110V is optional)	
Rated power			W	280	360
Pump	Head	m	13	20	
	Max flow	L/min	23	24	
Refrigerant	Type		R290 (R134a is optional)		
Water tank	Volume	L	1.8		
Temperature setting range			℃	10~35	
Temperature control accuracy			℃	±0.1	
Net weight			kg	10	
Gross weight			kg	12	
Fluid				Water/antifreeze	
Connector				10mm pneumatic joint	
Chiller size			mm	345*248*215	
Package size			mm	410*313*273	

Cooling Capacity Curve

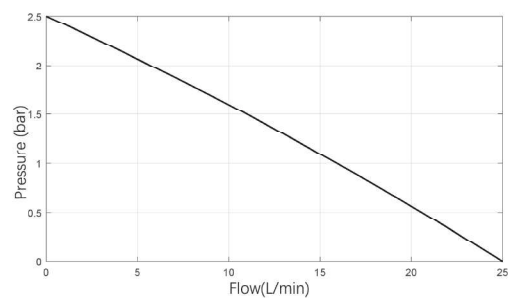




CS-ARC-Q420A110

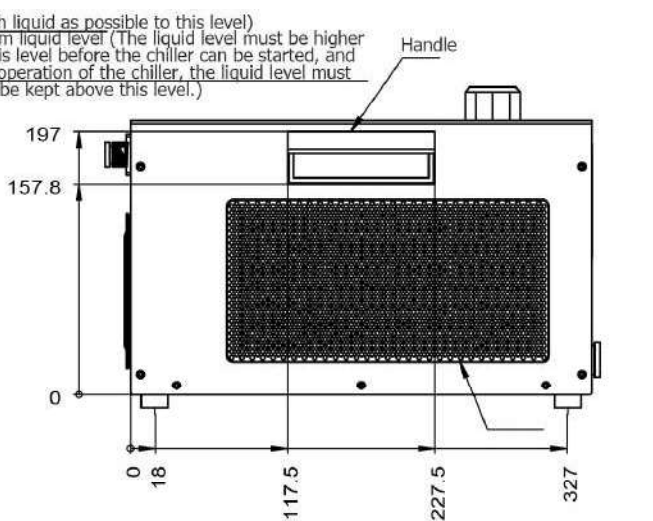
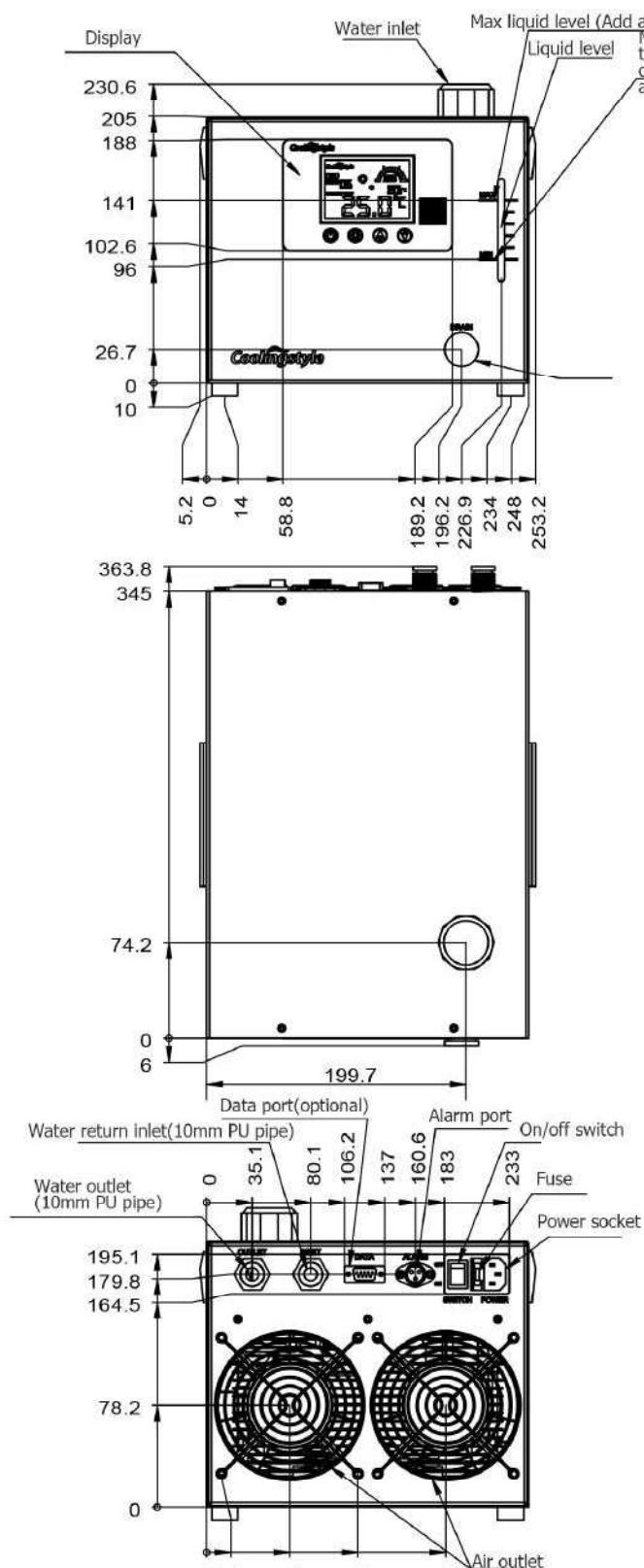


CS-ARC-Q420A111/Q580A110



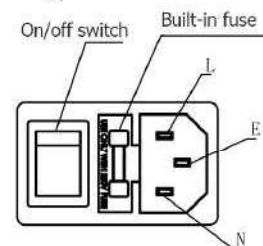
CS-ARC-Q580A111

Size



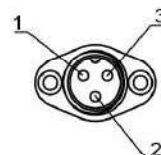
Power socket
AC220V, AC110V is optional

Pins	Signal content
L	Live wire
N	Neutral line
E	Ground wire



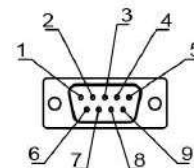
Alarm port(two ports are the same)

Chiller state	Signal content	
	Pin 1 and pin 2	Pin1 and pin 3
Normal working	Disconnect	Connect
Fault	Connect	Disconnect



Signal port (RS485 communication is customizable)

Pins	Signal content
1	Unused
2	Unused
3	A
4	Unused
5	GND
6	Unused
7	Unused
8	B
9	Unused



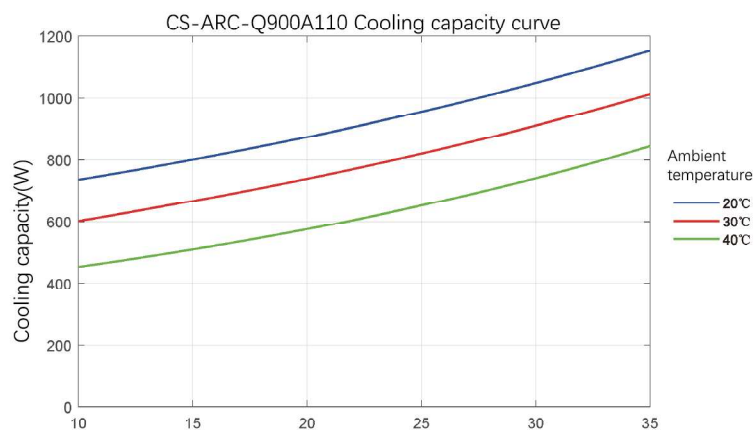
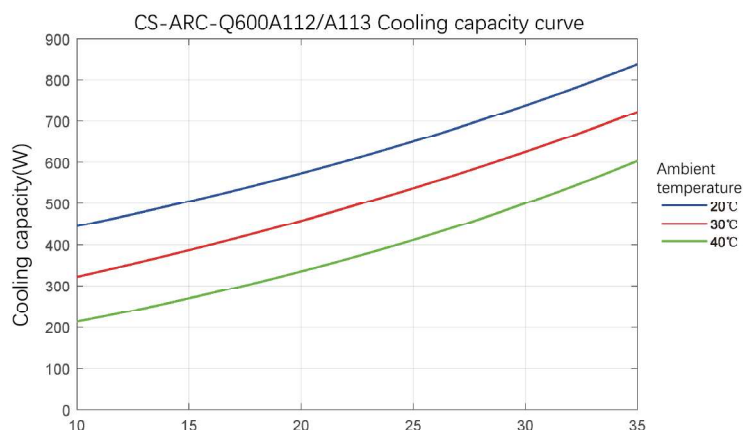
Unit: mm

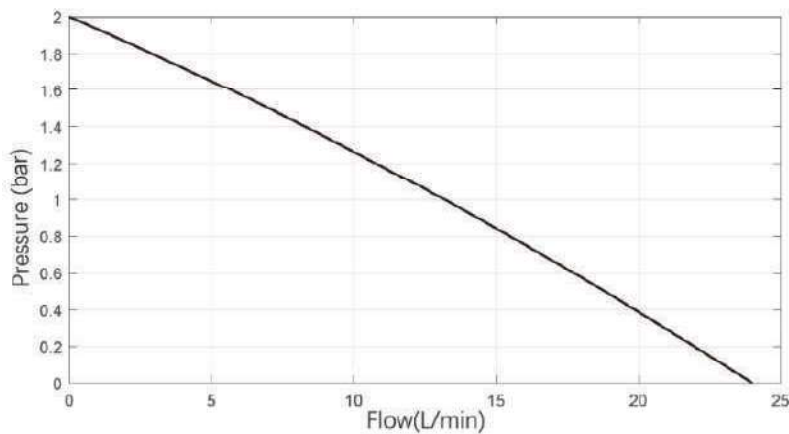
- Compact, portable, and lightweight design
- Intelligent frequency conversion for low energy consumption
- Precise temperature control of $\pm 0.1^{\circ}\text{C}$
- Flow rate alarm
- High and low temperature alarms
- Alarm signal output
- High-definition LCD screen display
- RS485 communication (optional)
- AC220V (standard), AC110V/DC24V (optional)



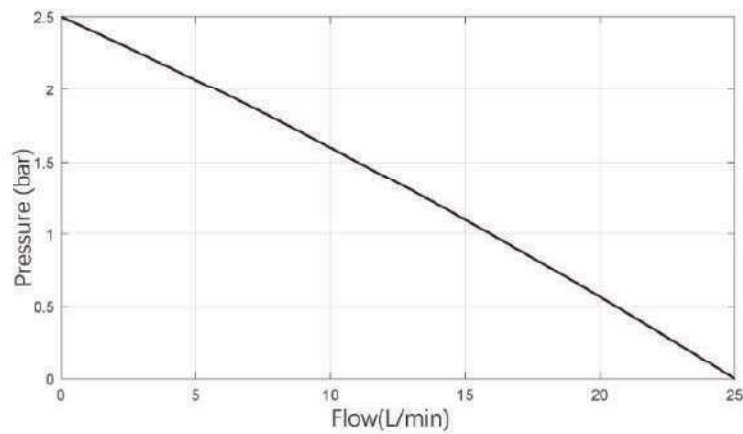
Product name	Micro chiller	Model	CS-ARC-Q600A112/A113		CS-ARC-Q900A110
Item		Unit	Value		Value
Nominal cooling capacity		W	600		900
Rated voltage/frequency		V/Hz	220/50-60, (110V is optional)		
Rated power		W	380	400	600
Pump	Head	m	20	25	25
	Max flow	L/min	24	25	25
Refrigerant	Type		R134a		
Water tank	Volume	L	1.9		
Temperature setting range		$^{\circ}\text{C}$	10~35		
Temperature control accuracy		$^{\circ}\text{C}$	± 0.1		
Working temperature		$^{\circ}\text{C}$	0~45		
Storage temperature		$^{\circ}\text{C}$	-10~60		
Net weight		kg	17		
Gross weight			Water/antifreeze		
Fluid			10mm pneumatic joint		
Connector		mm	380*340*265		
Chiller size		mm	477*437*362		
Package size			RS485		

Cooling Capacity Curve



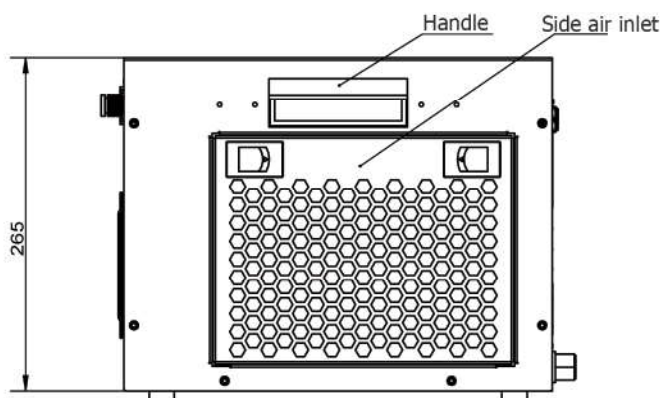
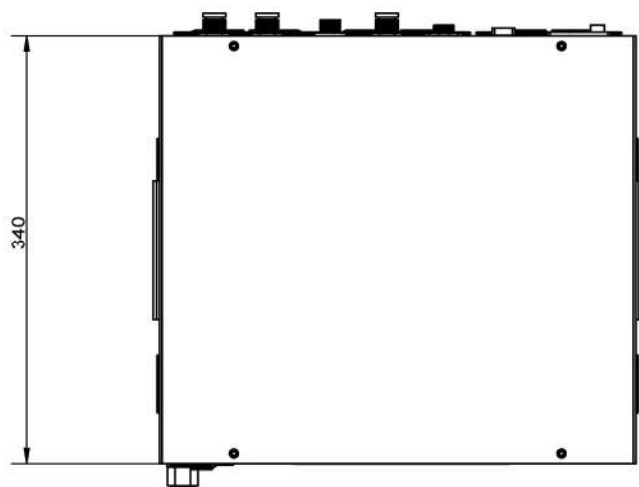
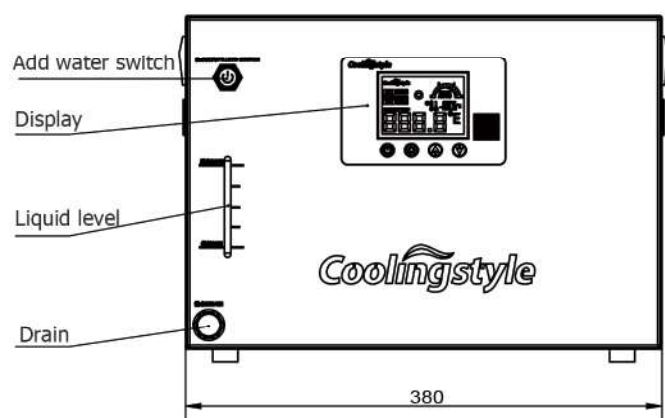


CS-ARC-Q600A112



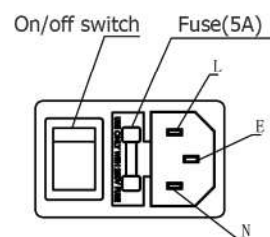
CS-ARC-Q600A113/Q900A110

Size



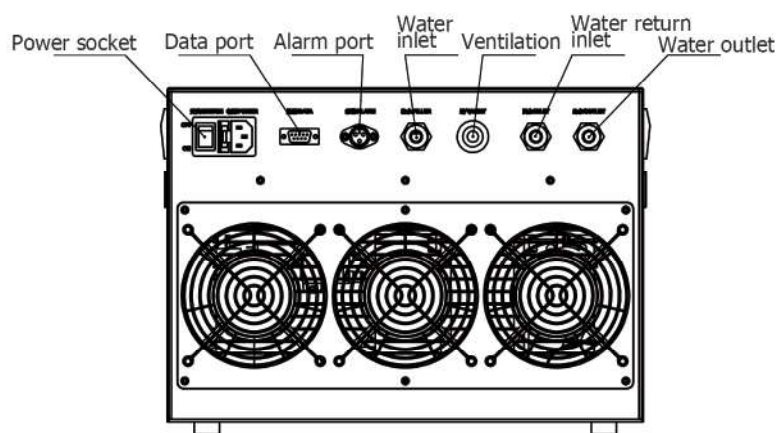
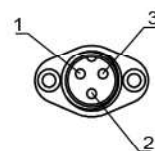
Power socket
AC220V, AC110V is optional

Pins	Signal content
L	Live wire
N	Neutral line
E	Ground wire



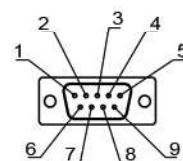
Alarm port(two ports are the same)

Chiller state	Signal content	
	Pin 1 and pin 2	Pin1 and pin 3
Normal working	Disconnect	Connect
Fault	Connect	Disconnect



Signal port (RS485 communication is customizable)

Pins	Signal content
1	Unused
2	Unused
3	A
4	Unused
5	GND
6	Unused
7	Unused
8	B
9	Unused



Unit: mm

- 4U rack-mounted design
- Intelligent frequency conversion, low energy consumption
- Precision temperature control of $\pm 0.1^{\circ}\text{C}$
- Flow rate alarm
- High and low temperature alarms
- Alarm signal output
- High-definition LCD screen display
- RS485 communication (optional)
- AC220V (standard), AC110V/DC24V (optional)



Product name	Laser chiller	Model	CS-ARC-Q4U22210	CS-ARC-Q4U2A210
Item		Unit	Value	Value
Nominal cooling capacity		W	500	600
Application			1-10W UV 355nm and 1-20W 532nm lasers	1-15W UV 355nm and 1-30W 532nm lasers
Rated voltage/frequency		V/Hz	24V DC	220V, 50/60HZ(110V is optional)
Rated power		W	400	440
Pump	Head	m	13	40
	Max flow	L/min	23	35
Refrigerant	Type		R290 (R134a is optional)	
Water tank	Volume	L	1.8	
Temperature setting range		℃	10~35	
Temperature control accuracy		℃	±0.1	
Net weight		kg	16.5	
Fluid			Water/antifreeze	
Connector			Quick release fitting	
Chiller size		mm	450*430*177	
Package size		mm	560*520*245	

Cooling Capacity Curve

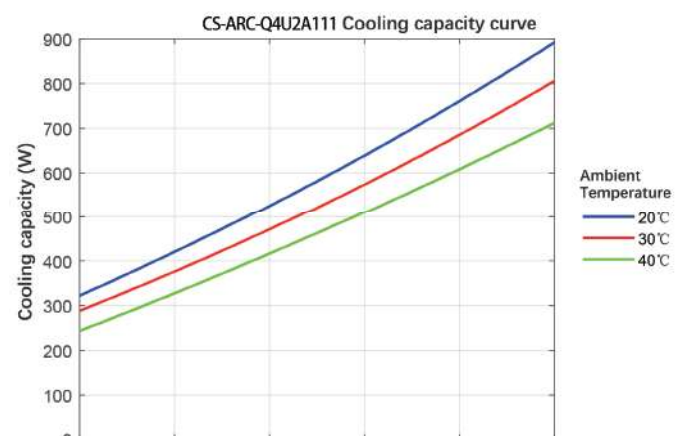
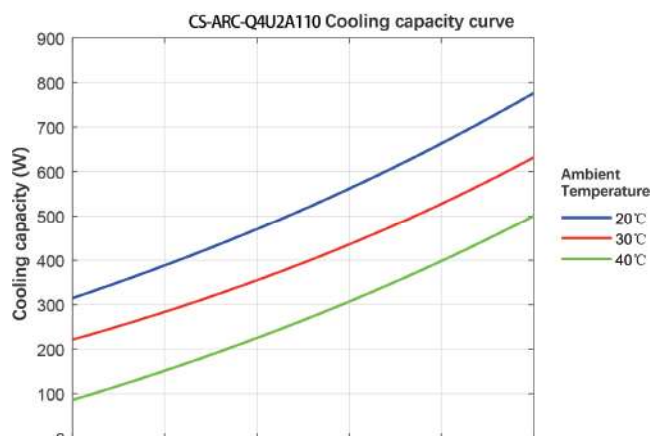


Figure 1 is a line graph showing the relationship between Flow (L/min) on the x-axis and Pressure (bar) on the y-axis. The x-axis ranges from 0 to 25 with major grid lines every 5 units. The y-axis ranges from 0 to 1.4 with major grid lines every 0.2 units. The curve starts at approximately (0, 1.3) and decreases non-linearly, reaching 0 pressure at approximately 23 L/min.

Flow (L/min)	Pressure (bar)
0	1.30
2.5	1.15
5	1.00
7.5	0.85
10	0.70
12.5	0.55
15	0.40
17.5	0.25
20	0.10
22.5	0.00

Flow (L/min)	Pressure (bar)
0	4.0
5	3.5
10	3.0
15	2.5
20	2.0
25	1.5
30	1.0
35	0.0

Front View: Shows the display, front air inlet, liquid level, minimum liquid level, add water switch, water inlet, ventilation, and drain. Dimensions include 177, 168.5, 160.5, 78.5, 16.5, 8.5, 0, 8.5, 36, 48, 198, 213, 352, 382, 420, 434, 446, 473.5, 482, 149.5, 145, 139.3, 104.5, 82.5, 37.7, 20, 0.

Top View: Shows the handle, side air inlet, and foot pads (optional). Dimensions include 10.

Rear View: Shows the data port (optional), water return inlet, water outlet, No.2 alarm port (optional), No.1 alarm port (standard), power socket, built-in fuse, and air outlet. Dimensions include 450, 14.5, 40, 430, 482, 17.1, 0, 190, 240, 292, 332, 372, 417, 167, 153.5, 150.5, 134, 116, 63.5, 11, 0, 5, 5, 5.

Power Socket: AC220V, AC110V is optional. Pins: L (Live wire), N (Neutral line), E (Ground wire). Built-in 10A fuse.

Alarm Port: Two ports are the same. Chiller state: Normal working (Pin 1 and pin 2 Disconnect, Pin1 and pin 3 Connect), Fault (Connect, Disconnect).

Signal Port: RS485 communication is customizable. Pins: 1 (Unused), 2 (Unused), 3 (A), 4 (Unused), 5 (GND), 6 (Unused), 7 (Unused), 8 (B), 9 (Unused).

Unit: mm

Pins	Signal content
L	Live wire
N	Neutral line
E	Ground wire

Chiller state	Signal content	
	Pin 1 and pin 2	Pin1 and pin 3
Normal working	Disconnect	Connect
Fault	Connect	Disconnect

Signal port (RS485 communication is customizable)

Pins	Signal content
1	Unused
2	Unused
3	A
4	Unused
5	GND
6	Unused
7	Unused
8	B
9	Unused

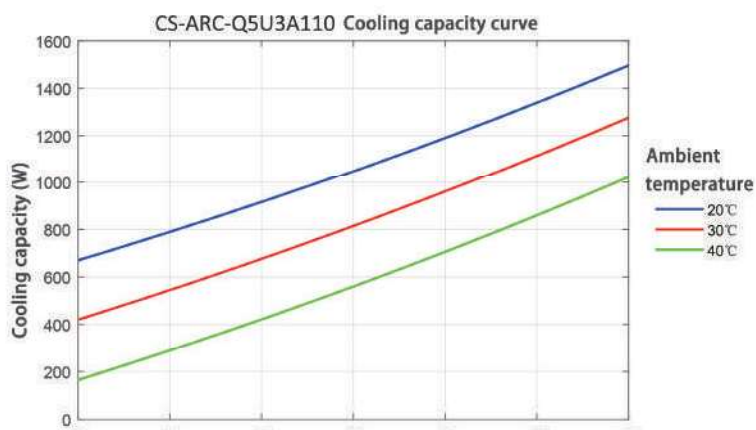
Unit: mm

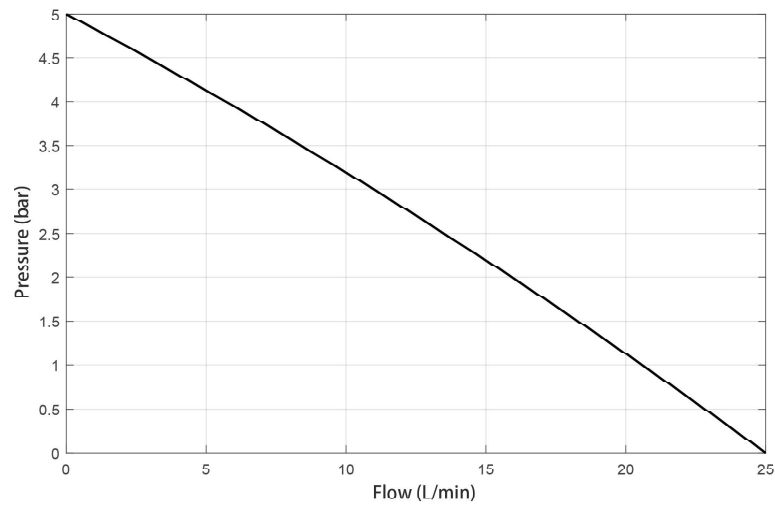
- 5U rack-mounted design
- Intelligent frequency conversion, low energy consumption
- Precision temperature control of $\pm 0.1^{\circ}\text{C}$
- Flow rate alarm
- High and low temperature alarms
- Alarm signal output
- High-definition LCD screen display
- RS485 communication (optional)
- AC220V (standard), AC110V/DC24V (optional)



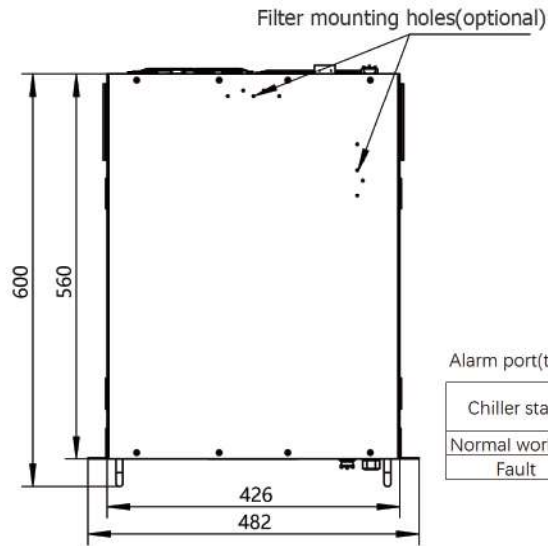
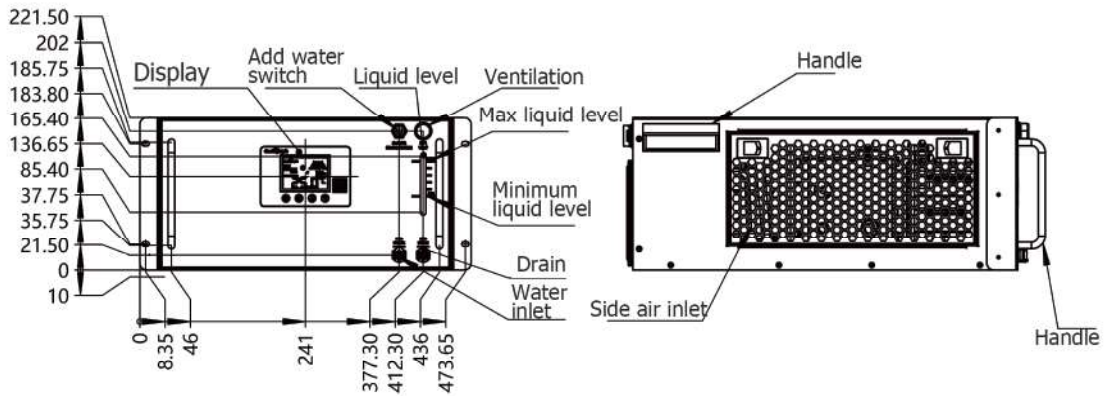
Product name	Laser chiller	Model	CS-ARC-Q5U32210	CS-ARC-Q5U3A210
Item		Unit	Value	Value
Nominal cooling capacity		W	1200	1200
Application			1-30W UV 355nm and 1-60W 532nm lasers	
Rated voltage/frequency		V/Hz	24V DC	220V, 50/60HZ(110V is optional)
Rated power		W	735	
Pump	Head	m	50	
	Max flow	L/min	25	
Refrigerant	Type		R290 (R134a is optional)	
Water tank	Volume	L	1.8	
Temperature setting range		℃	10~35	
Temperature control accuracy		℃	±0.1	
Net weight		kg	16.5	
Fluid			Water/antifreeze	
Connector			Quick release fitting	
Chiller size		mm	450*430*177	
Package size		mm	560*520*245	

Cooling Capacity Curve



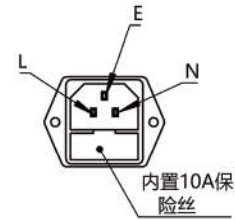


Size



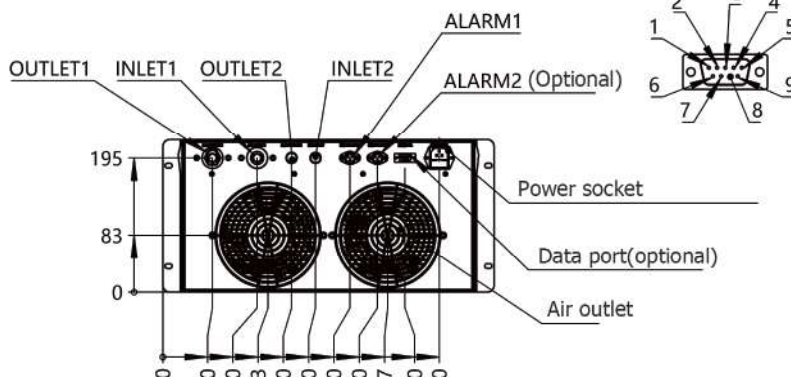
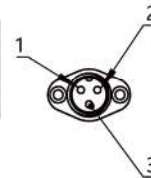
Power socket
AC220V, AC110V is optional

Pins	Signal content
L	Live wire
N	Neutral line
E	Ground wire



Alarm port(two ports are the same)

Chiller state	Signal content	
	Pin 1 and pin 2	Pin1 and pin 3
Normal working	Disconnect	Connect
Fault	Connect	Disconnect



Signal port (RS485 communication is optional)

Pins	Signal content
1	Unused
2	Unused
3	A
4	Unused
5	GND
6	Unused
7	Unused
8	B
9	Unused

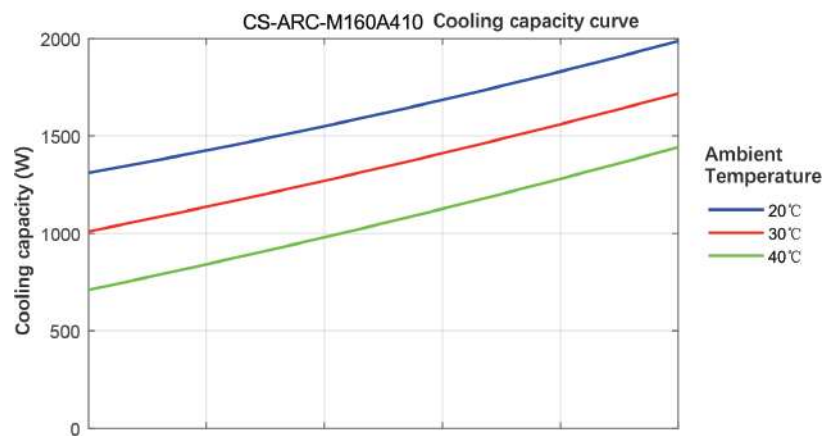
Unit: mm

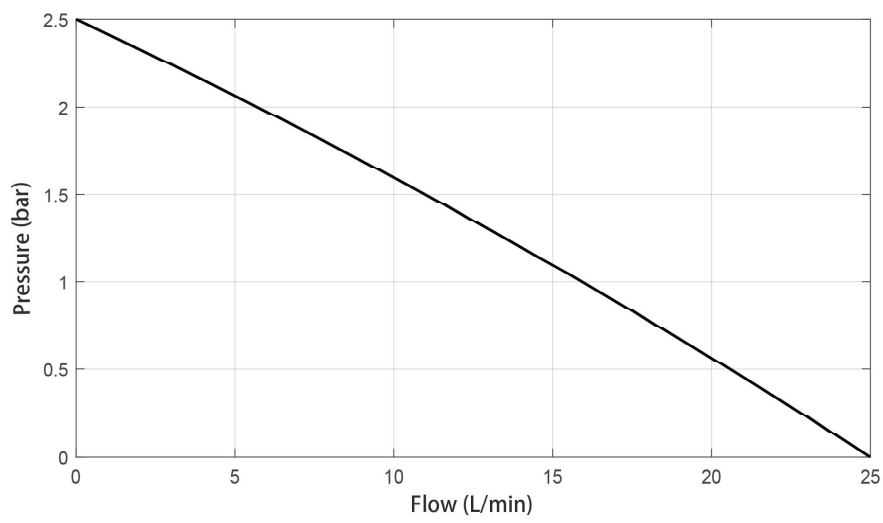
- 1600W large cooling capacity
- Precision temperature control of $\pm 0.1^{\circ}\text{C}$
- Flow rate alarm
- High and low temperature alarms
- Alarm signal output
- High-definition LCD screen display
- RS485 communication (optional)
- AC220V (standard)



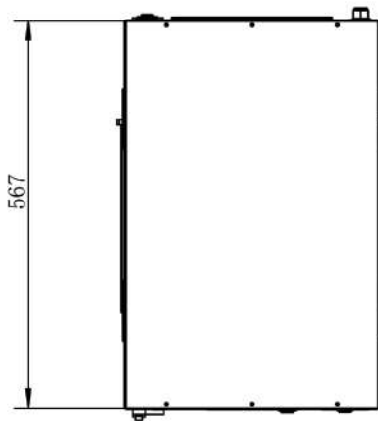
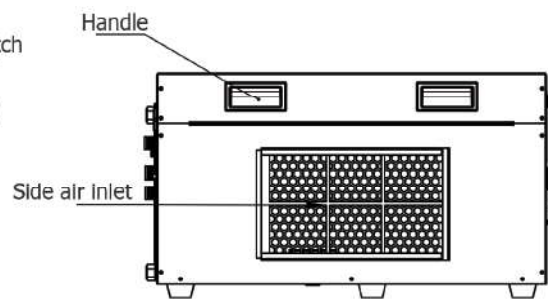
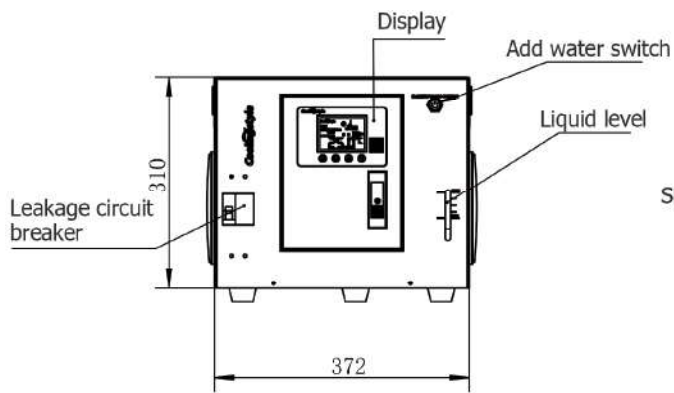
Product name	Laser chiller	Model	CS-ARC-M160A410
Item		Unit	Value
Nominal cooling capacity		W	1600
Rated voltage/frequency		V/Hz	220/50/1
Rated power		W	800
Pump	Head	m	25
	Max flow	L/min	25
Refrigerant	Type		R410a
Water tank	Volume	L	2
Temperature setting range		℃	10~35
Temperature control accuracy		℃	±0.1
Working temperature		℃	0~45
Storage temperature		℃	-10~60
Net weight		kg	27
Gross weight		kg	30
Fluid			Water/antifreeze
Connector			12mm pneumatic joint
Chiller size		mm	373*570*310
Package size		mm	458*650*395

Cooling Capacity Curve



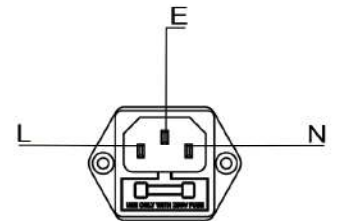


Size



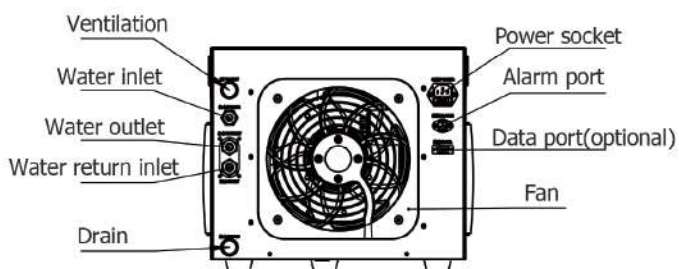
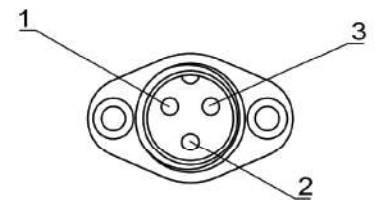
Power socket
AC220V

Pins	Signal content
L	Live wire
N	Neutral line
E	Ground wire



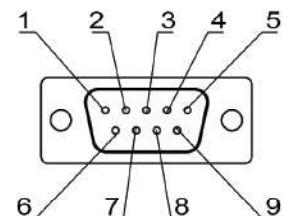
Alarm port(two ports are the same)

Chiller state	Signal content	
	Pin 1 and pin 2	Pin1 and pin 3
Normal working	Disconnect	Connect
Fault	Connect	Disconnect



Signal port (RS485 communication is customizable)

Pins	Signal content
1	Unused
2	Unused
3	A
4	Unused
5	GND
6	Unused
7	Unused
8	B
9	Unused



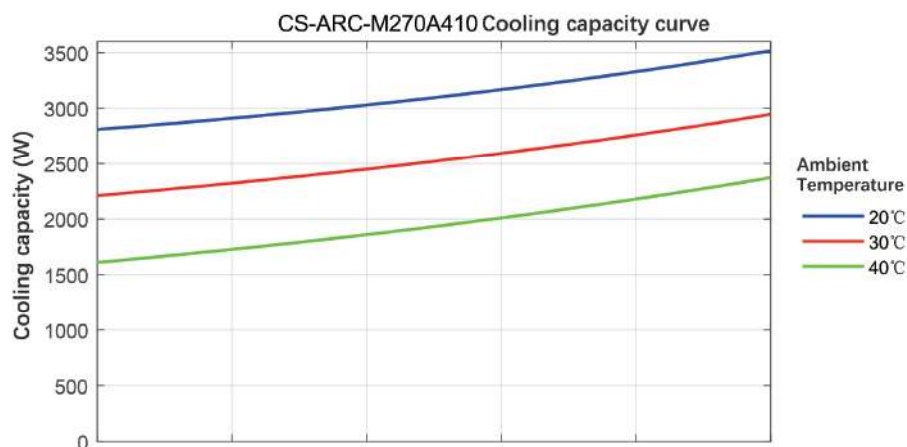
Unit: mm

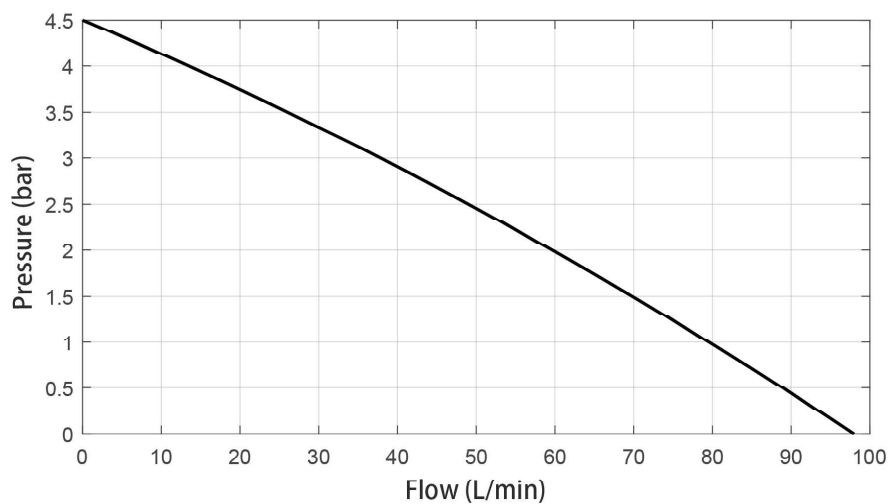
- 2700W large cooling capacity
- Intelligent frequency conversion, low energy consumption
- Precision temperature control of $\pm 0.1^{\circ}\text{C}$
- Flow rate alarm
- High and low temperature alarms
- Alarm signal output
- High-definition LCD screen display
- RS485 communication (optional)
- AC220V (standard)



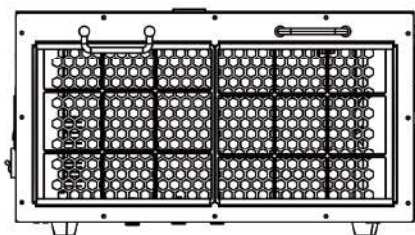
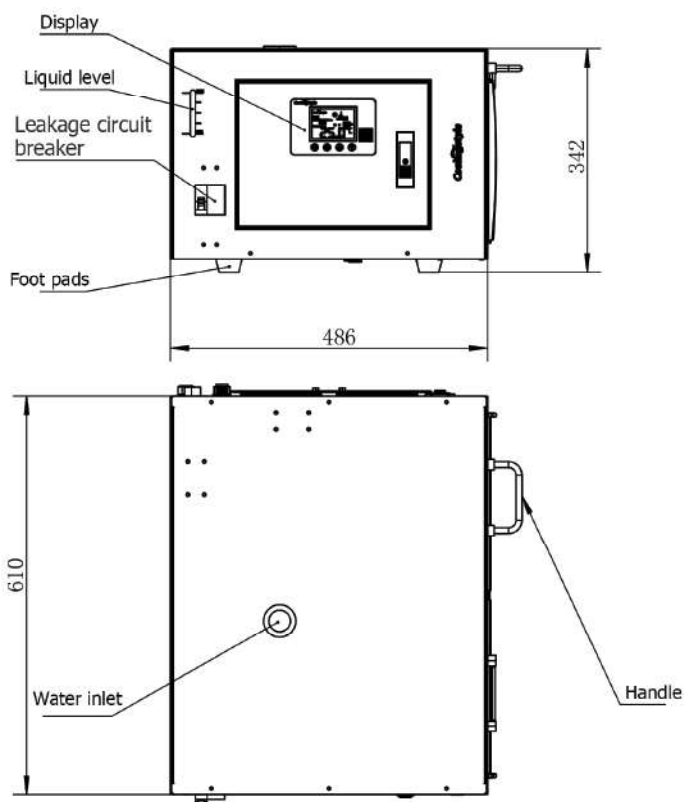
Product name		Laser chiller	Model	CS-ARC-M270A410
Item			Unit	Value
Nominal cooling capacity			W	2700
Rated voltage/frequency			V/Hz/Φ	220 /50 /1
Rated power			W	1700
Pump	Head	m	45	
	Max flow	L/min	98	
Refrigerant	Type		R410a	
Water tank			Volume	6L
Temperature setting range			℃	10-35
Temperature control accuracy			℃	0~45
Working temperature			℃	0~45
Storage temperature			℃	-10~60
Net weight			kg	42
Gross weight			kg	50
Fluid				Water/antifreeze
Connector				12mm pneumatic joint
Chiller size			mm	610×486×322
Package size			mm	725×600×420

Cooling Capacity Curve



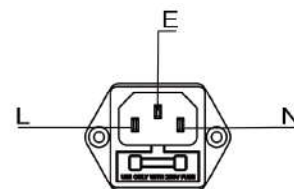


Size



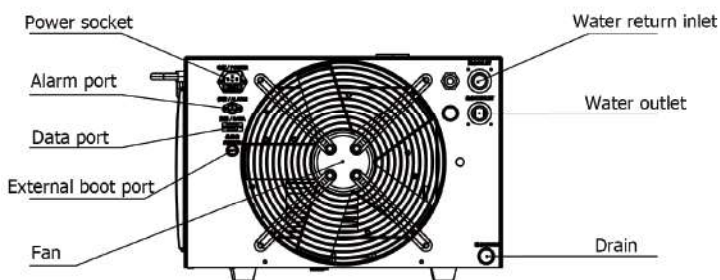
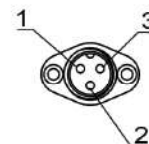
Power socket
AC220V

Pins	Signal content
L	Live wire
N	Neutral line
E	Ground wire



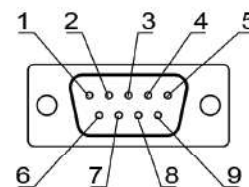
Alarm port(two ports are the same)

Chiller state	Signal content	
	Pin 1 and pin 2	Pin1 and pin 3
Normal working	Disconnect	Connect
Fault	Connect	Disconnect



Signal port (RS485 communication is customizable)

Pins	Signal content
1	Unused
2	Unused
3	A
4	Unused
5	GND
6	Unused
7	Unused
8	B
9	Unused



Unit: mm

Laser Chiller Selection Made Easy

Chiller \ Lasers	Cooling Capacity	Applications	Nanosecond Laser Machine			Picosecond Laser Machine		
			UV Nanosecond Laser	Green Nanosecond Laser	Infrared Nanosecond Lasers	Purple Picosecond Laser	Green Picosecond Laser	Red Picosecond Laser
CS-ARC-Q420/Q580	420W	Static Marking	0-10W	0-20W	0-200W	0-5w	0-10w	0-30w
CS-ARC-Q600	600W	Flying marking	10-15W	20-30W	0-300W	0-5w	0-10w	0-30w
CS-ARC-Q4U	600W	Static, Flying marking	10-15W	20-30W	0-300W	5-10w	0-20w	0-45w
CS-ARC-Q900	900W	Static, Flying marking	10-20W	30-50W	300-500W	10w-15w	0-45w	0-70w
CS-ARC-Q5U	1200W	Static, Flying marking	10-30W	30-60W	300-500W	10w-15w	0-45w	0-70w
CS-ARC-M160A410	1600W	Static, Flying marking	10-30W	30-100W	300-500W	10w-15w	0-100w	0-100w
CS-ARC-M270A410	2700W	Static, Flying marking	30-50W	60-200W	500-1000W	30w-50w	30-100w	0-200w

Coolingstyle Chillers in Action: On-Site Applications

