Chiller (Recirculating Cooler)
HL low temperature general type

Low temperature-type general model controlled down to -20°C.

Structural Functional Features

- Low-temperature chiller controlled from -20°C to 40°C has proven performance specifications and high reliability.
- Optimized slim and compact design minimizes installation space.
- The conventional simple refrigerant compressor control method can cause the compressor life to be shortened by turning the refrigeration system on/off from time to time to control the temperature. However, the Lab Companion's Chiller is a unique refrigerant control type cooling system completed using our proprietary technology development. Compressor On/Off operation is minimized, and durability of the cooling system is greatly increased.
- Double service valve prevents refrigerant leakage.
- Easy installation with air-cooled type integrated refrigeration system.
- Easy to clean as it is easy to remove refrigerator condenser grill, making it convenient to maintain efficiency of refrigeration.
- Installation of refrigeration system using environmentally friendly refrigerant.
- Pump pressure can be confirmed from the front of the machine, so it is always convenient to check the operation status.
- Bath fluid inlet is wide, making installation and maintenance convenient.
- Equipped with removable casters for easy movement and installation.

HL-25H HL-20H

Use Convenience Features

- Clear VFD display provides excellent visual perception.
- Identify all operations and operating conditions from the front panel.
- Simultaneously displays the set value and the current value, and settings can be changed during equipment use, making it convenient.
- Highly-reliable control through calibration.
- The refrigeration compressor and pump can be each turned On/Off.
- Level indicator with LED backlight for easy checking of bath fluid level.
- Easy to maintain as a drain valve is included.

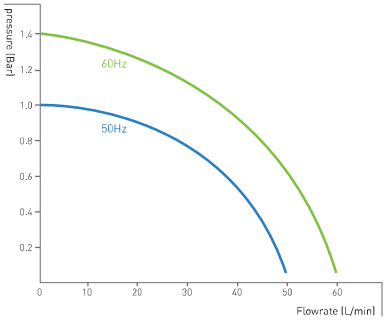
Outstanding Safety

- Over temperature alarm.
- Provides a warning when abnormal temperature or bath fluid shortage is detected, and keeps the chiller operating continuously to protect the user application.
- Over-current and short circuit protection of device.
- Automatic stop in case of over temperature of the compressor.
- Malfunction prevented by controller lock function.

CE | Green CFC-Free | Full / Start Level Indicator | Low Level | 1 Point Temperature Calibration | Over Temp. | 2 year Warranty

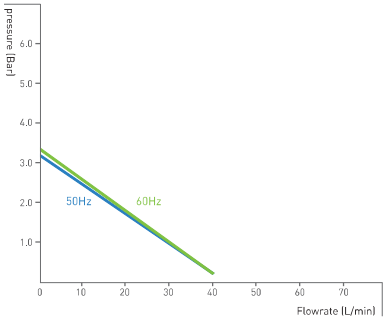
Pumping capacities

STS housing ABS pump

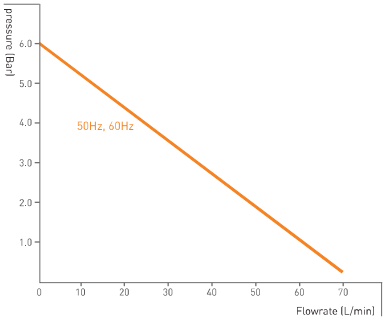


※ Application model : HL - 05, 10, 15, 20

Submersible pump



※ Application model : HL - 15H, 20H, 25H, 35H



※ Application model : HL - 45H, 55H

Specification

Model	HL-05	HL-10	HL-15	HL-20	HL-15H	HL-20H	HL-25H	HL-35H	HL-45H	HL-55H
Interior dimensions										
Max. filling volume (L / cu ft)	8 / 0.28	8 / 0.28	14 / 0.49	14 / 0.49	14 / 0.49	14 / 0.49	25 / 0.88	25 / 0.88	39 / 1.38	39 / 1.38
Refrigerator capacity (HP)	1/5	1/3	1/2	3/4	1/2	3/4	1	1.5	2	3
For tubing dia. (mm / inch)	20 / (3/4")	20 / (3/4")	20 / (3/4")	20 / (3/4")	20 / (3/4")	20 / (3/4")	20 / (3/4")	20 / (3/4")	20 / (3/4")	20 / (3/4")
Filling inlet (Ø, mm / inch)	120 / 4.7	120 / 4.7	120 / 4.7	120 / 4.7	120 / 4.7	120 / 4.7	120 / 4.7	120 / 4.7	120 / 4.7	120 / 4.7
Exterior dimensions										
Width (mm / inch)	405 / 15.9	405 / 15.9	515 / 20.3	515 / 20.3	515 / 20.3	515 / 20.3	550 / 21.7	550 / 21.7	605 / 23.8	605 / 23.8
Depth (with drain valve), (mm / inch)	550 (620) / 21.7 (24.4)	550 (620) / 21.7 (24.4)	645 (715) / 25.4 (28.1)	645 (715) / 25.4 (28.1)	645 (715) / 25.4 (28.1)	645 (715) / 25.4 (28.1)	830 (900) / 32.7 (35.4)	830 (900) / 32.7 (35.4)	975 (1045) / 38.4 (41.1)	975 (1045) / 38.4 (41.1)
Height (with lid), (mm / inch)	675 (710) / 26.6 (10.6)	675 (710) / 26.6 (10.6)	800 (835) / 31.5 (32.9)	800 (835) / 31.5 (32.9)	800 (835) / 31.5 (32.9)	800 (835) / 31.5 (32.9)	1105 (1140) / 43.5 (44.9)	1105 (1140) / 43.5 (44.9)	1265 (1300) / 49.8 (51.2)	1265 (1300) / 49.8 (51.2)
Weight (kg / lbs)	62.9 / 138.7	64.9 / 143.1	86.5 / 190.7	87.4 / 192.7	91.8 / 202.4	92.7 / 204.4	141.3 / 311.5	146.3 / 322.5	171±10 / 377±20.1	176±10 / 388±20.1
Temperature data										
Working temperature range (°C / °F)	-20 to 40 / -4 to 104	-20 to 40 / -4 to 104	-20 to 40 / -4 to 104	-20 to 40 / -4 to 104	-20 to 40 / -4 to 104	-20 to 40 / -4 to 104	-20 to 40 / -4 to 104	-20 to 40 / -4 to 104	-20 to 40 / -4 to 104	-20 to 40 / -4 to 104
Temperature stability at 15°C (±°C / °F)	1 / 1.8	1 / 1.8	1 / 1.8	1 / 1.8	1 / 1.8	1 / 1.8	1 / 1.8	1 / 1.8	1 / 1.8	1 / 1.8
Cooling capacity, Max										
at 20°C (kW)	0.7	0.76	1.7	1.85	1.7	1.85	2.8	3.5	6.5	7.1
at 10°C (kW)	0.6	0.65	1.35	1.6	1.35	1.6	2.2	2.5	4.5	6
at 0°C (kW)	0.4	0.5	0.87	1.2	0.87	1.2	1.3	1.8	3	4.1
at -10°C (kW)	0.2	0.36	0.67	0.87	0.67	0.87	0.9	1.1	2.1	2.5
at -20°C (kW)	0.06	0.16	0.32	0.45	0.32	0.45	0.45	0.6	1.2	1.5
Pump data										
Max. flow rate (L / min, gal / min)	60 / 15.9	60 / 15.9	60 / 15.9	60 / 15.9	40 / 10.6	40 / 10.6	40 / 10.6	40 / 10.6	70 / 18.5	70 / 18.5
Max. pressure (bar / psi)	1.4 / 20.3	1.4 / 20.3	1.4 / 20.3	1.4 / 20.3	3.3 / 47.9	3.3 / 47.9	3.3 / 47.9	3.3 / 47.9	6 / 87.0	6 / 87.0
Electrical data & Ordering information										
230V, 50Hz, A	4.5	5	6	7	6	7	7.5	12.5		
Cat. No.	**AAH65002K**	**AAH65012K**	**AAH65022K**	**AAH65032K**	**AAH65122K**	**AAH65132K**	**AAH65142K**	**AAH65152K**	-	-
230V, 60Hz, A	5	5.5	6.5	7.5	6.5	7.5	9.5	13.5		
Cat. No.	**AAH65001K**	**AAH65011K**	**AAH65021K**	**AAH65031K**	**AAH65121K**	**AAH65131K**	**AAH65141K**	**AAH65151K**	-	-
120V, 60Hz, A	10	11	13	15						
Cat. No.	**AAH65003U**	**AAH65013U**	**AAH65023U**	**AAH65033U**	-	-	-	-	-	-
380V, 50Hz, A									5	6
Cat. No.	-	-	-	-	-	-	-	-	**AAH65168K**	**AAH65178K**
380V, 60Hz, A									5.5	7
Cat. No.	-	-	-	-	-	-	-	-	**AAH65169K**	**AAH65179K**

※ According to DIN 12876
※ Temperature stability / Pump data : Water, Cooling capacity : Ethanol
※ Above specification value is recorded by 230V 60Hz. (HL-45H, 55H is recorded by 380V 60Hz)
※ Product performance may be affected by ambient temperature.

Accessories Page 44

Fitting, Connector, Adapter, Tubing, Tube Clamp

Chiller (Recirculating Cooler)
Compact type

Optimized for use with Rotary Evaporators

Structural Functional Features

- Optimized for use with rotary evaporator.
- Pump In/Out port is located at the top, making it easy to connect and disassemble with the evaporator set.
- Optimized slim and compact design minimizes installation space.
- The conventional simple refrigerant compressor control method can cause the compressor life to be shortened by turning the refrigeration system on/off from time to time to control the temperature. However, the Lab Companion's Chiller is a unique refrigerant control type cooling system completed using our proprietary technology development. Compressor On/Off operation is minimized, and durability of the cooling system is greatly increased.
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- Installation of refrigeration system using environmentally friendly refrigerant.
- Pump pressure can be confirmed from the front of the machine, so it is always convenient to check the operation status.
- Bath fluid inlet is wide, making installation and maintenance convenient.

RC-05

Use Convenience Features

- Bright LCD display provides excellent visual perception.
- Identify all operations and operating conditions from the front panel.
- Simultaneously displays the set value and the current value, and settings can be changed during equipment use, making it convenient.
- Highly-reliable control through calibration.
- The refrigeration compressor and pump can each be turned On/Off.
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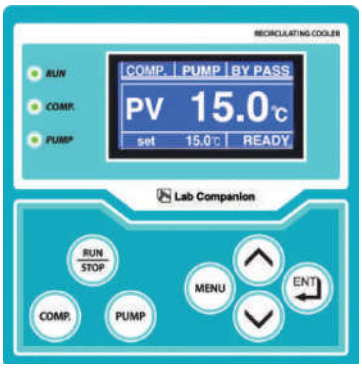

Outstanding Safety

- Over temperature alarm.
- Provides a warning when abnormal temperature or bath fluid shortage is detected, and keeps the chiller operating continuously to protect the user application.
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- Malfunction prevented by controller lock function.
- Automatic stop in case of over temperature of the compressor