

Thermo-chiller

Fluorinated Fluid Type

Series HRW



SEMI

How to Order

Fluorinated Fluid Type

HRW 002 - H - -

Cooling capacity

Symbol	Cooling capacity
002	2 kW
008	8 kW
015	15 kW
030	30 kW

Temperature range setting

Symbol	Temperature range setting
H	68 to 194°F (20 to 90°C)

Option

Symbol	Option
Nil	None
C	Analog communication
D	DeviceNet communication
N	NPT fitting
Z	Circulating fluid automatic recovery

Pump inverter control

Symbol	Pump inverter control
Nil	None
S	Applicable (Pump inverter type)

Specifications (For details, please consult our "Product Specifications" information.)

Model	HRW002-H HRW002-HS	HRW008-H HRW008-HS	HRW015-H HRW015-HS	HRW030-H HRW030-HS	
Cooling method	Water-cooled				
Ambient temperature/humidity ^{Note 1)}	Temperature: 50 to 95°F (10 to 35°C), Humidity: 30 to 70%RH				
Circulating fluid ^{Note 2)}	Fluorinert™ FC-40/GALDEN® HT200				
Temperature range setting ^{Note 1)}	68 to 194°F (20 to 90°C)				
Cooling capacity (50/60 Hz common) (kW)	2	8	15	29	
Circulating fluid system	Conditions				
	Circulating fluid temperature	Facility water temperature +27°F (15°C)			
	Facility water temperature	50 to 95°F (10 to 35°C)			
	Circulating fluid rated flow	1.1 gpm (4 L/min)	7.9 gpm (30 L/min)	10.6 gpm (40 L/min)	10.6 gpm (40 L/min)
	Facility water required flow rate	2.6 gpm (10 L/min)	5.3 gpm (20 L/min)	6.6 gpm (25 L/min)	10.6 gpm (40 L/min)
Temperature stability ^{Note 3)}	±0.54°F (±0.3°C)				
Pump capacity ^{Note 4)} (50/60 Hz)(MPa)	0.40/0.60 (at 4 L/min)	0.45/0.65 (at 30 L/min)	0.40/0.60 (at 40 L/min)	0.40/0.60 (at 40 L/min)	
Circulating fluid flow range ^{Note 5)} (L/min)	0.8 to 4.2 gpm (3 to 16 L/min)		2.4 to 13.2 gpm (9 to 50 L/min)		
Tank capacity ^{Note 6)}	Approx. 3.4 gal (13 L)		Approx. 3.7 gal (14 L)		
Circulating fluid recovery tank volume ^{Note 7)}	3.2 gal (12 L)				
Port size	Rc3/4				
Wetted parts material	Copper brazing (Heat exchanger), Stainless steel, EPDM, Silicone, PPS, Fluororesin				
Facility water system	Temperature range	50 to 95°F (10 to 35°C)			
	Required flow rate ^{Note 8)}	2.6 gpm (10 L/min)	5.3 gpm (20 L/min)	6.6 gpm (25 L/min)	10.6 gpm (40 L/min)
	Inlet pressure range	44 to 102 psi (0.3 to 0.7 MPa)			
	Port size	Rc3/4			
Wetted parts material	Copper brazing (Heat exchanger), Stainless steel, EPDM, Silicone, Bronze, Brass				
Electrical system	Power supply	3-phase 200/200 to 208 VAC ±10%			
	Max. operating current (A)	26			
	Breaker capacity (A)	30			
	Communications	Serial RS-485 (D-sub 9 pin) and Contact input/output (D-sub 25 pin)			
Dimensions ^{Note 9)}	W15 in (380mm) x D26.2 in (665mm) x H33.9 in (860 mm)				
Weight ^{Note 10)}	Approx. 198 lbs (90 kg)		Approx. 220 lbs (100 kg)		
Safety standards	UL, CE marking, SEMI (S2-0703, S8-1103, F47-0200), SEMATECH (S2-93, S8-95)				

Note 1) It should have no condensation.

Note 2) Fluorinert™ is a trademark of 3M and GALDEN® is a registered trademark of Solvay Solexis, Inc. Regarding the fluid other than the above, please contact SMC.

Note 3) Outlet temperature when the circulating fluid and facility water are rated flow, and the circulating fluid outlet and return port are directly connected. Installation environment, power supply, and facility water are within specification range and stable. Value obtained 10 minutes after the external load is stabilized. It may be out of ±0.54°F (±0.3°C) in some other operating conditions.

Note 4) The capacity at the circulating fluid outlet when the circulating fluid temperature is 68°F (20°C). Pump capacity at 60 Hz indicates the maximum capacity of the HRW□□□-HS (pump inverter type).

Note 5) Applicable to the HRW□□□-HS (pump inverter type) only.

Note 6) Minimum volume required for operating only the Thermo-chiller. (Circulating fluid temperature: 68°F (20°C), including the Thermo-chiller's internal pipings or heat exchanger)

Note 7) The automatic circulating fluid recovering function will be provided by selecting option Z for collecting the circulating fluid inside an external piping.

Note 8) Required flow rate for cooling capacity or maintaining the temperature stability. Note 9) Panel dimensions. These dimensions do not include possible protrusions such as a breaker handle.

Note 10) Weight in the dry state without circulating fluids