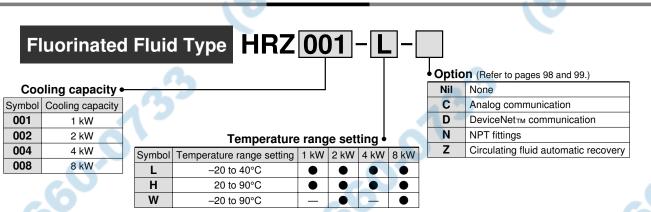




## **How to Order**



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

_	3 7											
	Model	HRZ001-L	HRZ002-L	HRZ004-L				H HRZ004-H	HRZ008-H	HRZ002-W	HRZ008-W	
Cooling method		Water-cooled refrigeration										
	rigerant	R404A (HFC)										
	ntrol system	PID control										
Am	bient temp./humidity Note 1)	Temperature: 10 to 35°C, Humidity: 30 to 70%RH										
	Circulating fluid Note 2)	Fluorine	ert™ FC-328	3/GALDEN®	HT135	Fluoi	inert™ FC	-40/GALDEN®	0/GALDEN® HT200		-20 to 40°C: Fluorinert <sup>TM</sup> FC-3283/GALDEN® HT135 20 to 90°C: Fluorinert <sup>TM</sup> FC-40/GALDEN® HT200	
Ē	Temp. range setting Note 1) (°C)	-20 to 40				20 to 90				-20 to 90		
(v)	Cooling capacity Note 3) (kW)	1.0 (at -10°C)	2.0 (at –10°C)	4.0 (at -10°C)	8.0 (at -10°C)	1.0 (at 20°C)	2.0 (at 20°C)	4.0 (at 20°C)	8.0 (at 20°C)	2.0 (at 20°C)	8.0 (at 20°C)	
	Heating capacity Note 3) (kW)	2.8 (at -10°C)	3.2 (at –10°C)	3.6 (at –10°C)	5.9 (at –10°C)	2.3 (at 20°C)	2.6 (at 20°C)	2.8 (at 20°C)	3.0 (at 20°C)	2.3 (at 20°C)	3.3 (at 20°C)	
ng	Temp. stability Note 4) (°C)	±0.1										
Circulating	Pump capacity Note 5) (50/60 Hz) (MPa)	0.45/0.65 (at 20 ℓ/min)			0.65/0.95 (at 30 e/min)	0.40/0 (at 20 <i>e</i> /		0.45/0.65 (at 20 d/n				
ᇙ	Rated flow Note 6) (/min)	20			30	-10		20				
	Main tank capacity Note 7) (2)	Approx. 15			Approx. 22	Approx	. 12	Approx. 15				
	Sub-tank capacity Note 8) (2)	Approx. 16			Approx. 17	Approx. 15			Approx. 16			
	Port size	Rc 3/4										
	Wetted parts material	Stainless steel, EPDM, Copper brazing (Heat exchanger), PPS, Silicone, Fluororesin										
tem	Temperature range (°C)	10 to 25										
-	Pressure range (MPa)				0.3 to 0.7							
wate	Required flow Note 9) (50/60 Hz) (t/min)	5/5	6/6	15/22	18/23	3/4	5/6	9/10	13/14	6/7	13/14	
<b>⊣</b> ≒⊢	Port size	Rc 1/2										
	Wetted parts material	Stainless steel, EPDM, Copper brazing (Heat exchanger), Silicone, Brass										
_ <u>w</u> ⊢	Power supply					200 to 208 VAC 60 Hz Allowable voltage fluctuation ±10%						
	Breaker capacity (A)	30			60	2		30				
틸	Rated current (A)	20 25 46 14 23										
_ × ⊢	Alarm	Refer to page 94.										
$\perp$	Communications	Contact input/output (D-sub 25 pin) and Serial RS-485 (D-sub 9 pin) (Refer to pages 92 and 93.)										
	ss Note 10) (kg) ety standards	170 175			275	275 145 (S2-0703, S8-0701, F47-0200), S			170			

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) (1) Facility water temperature: 25°C, (2) Circulating fluid flow rate: Values at circulating fluid rated flow rate. Values common for 50/60 Hz.

Note 4) Thermo-cooler specifications do not have heating capability.

Note 5) Capacity of the Thermo-chiller outlet when the circulating fluid temperature is at 20°C.

Note 6) Required flow for cooling capacity or maintaining the temperature stability. When used below the rated flow, use the individually sold, "By-pass piping set" (Refer to page 95).

Note 7) Minimum volume required for operating only the Thermo-chiller. (Circulating fluid temperature: 20°C, including the Thermo-chiller's internal pipings or heat exchanger)

Note 8) Preliminary space volume without main tank capacity. Available for collecting the circulating fluid inside an external piping or for preliminary injection. Note 9) Required flow when a load is applied as shown in the cooling capacity when the facility water temperature is at 25°C.



Note 10) Mass in the dry state without circulating fluids.