Water Cooled Type(R-407C)

Standard Specification(60Hz)

GWRD 080~160A

Specification \ Model				GWRD 080A	GWRD 100A	GWRD 120A	GWRD 160A
Cooling Capacity			kW	254.0	327.3	377.5	514.7
			BTU/h	867,200	1,117,500	1,288,900	1,757,400
			usRT	72.2	93.0	107.3	146.3
Power Source	Power Source			3 Ph 380 / 440 / 460 V 60 Hz			
	Power consumption		kW	71.4	88.6	100.2	133.8
	Running Current	380	V	121.6	152.8	170.4	228.4
		400	V	105.0	132.0	147.2	197.3
		415	V	100.5	126.2	140.8	188.7
Compressor	Type			SEMI-HERMETIC SCREW			
	Oil Heator		W	2 × 150			
	Starting Method			Y - Δ STARTING			
Evaporator	Type			SHELL & TUBE TYPE			
	Water Flow Rate		LPM	728	938	1,082	1,475
	Pressure Drop		KPa	50	41	41	54
	Ref. Max Pressure		MPa	1.6			
	Water Max Pressure		MPa	1.0			
Condenser	Type			SHELL & TUBE TYPE			
	Water Flow Rate		LPM	933	1,192	1,369	1,859
	Pressure Drop		KPa	27	21	28	37
	Ref. Max Pressure		MPa	2.7			
	Water Max Pressure		MPa	1.0			
Refrigerant Control				EXPANSION VALVE			
Control Capacity				16.5%(STARTING), 33 ~ 100%		12.5%(STARTING), 25 ~ 100%	
Safety Parts				DUAL PRESSURE SWITCH, DEFROSTER, OVER CURRENT RELAY, PHASE REVERSAL PROTECTOR, DEFROSTER, DISCHARGE GAS & INTERNAL THERMOSTAT, SAFETY VALVE			
Piping Connection	Chilled Water			100A (4B)	125A (5B)	125A (5B)	125A (5B)
	Cooling Water			100A (4B)	100A (4B)	125A (5B)	125A (5B)
	Drain			25A (1B)			
Pefrigerant	Type			R - 407C			
	Charged Volume		kg	2 × 30	2 × 35	2 × 40	2 × 60
Lubricant	Type			CPI SOLEST 120			
	Charged Volume		ℓ	2 × 7	2 × 7	2 × 8	2 × 14
Weight	Net		kg	1,650	1,940	2,200	2,650
	Operating		kg	1,860	2,210	2,540	3,120

※ Note
1. Inlet/outlet temp. of chilled water : 12/7°C(53.6/44.6°F)
2. Inlet/outlet temp. of cooling water : 30/35°C(86/95°F)
3. Fouling factor : 0.000086m^{2}°C/W(0.00049ft^{2}°C/BTU)
4. These specifications are subject to alternation for technical improvment without notice.

Standard Specification(60Hz)

GWRD 200~350A

Specification \ Model				GWRD 200A	GWRD 250A	GWRD 300A	GWRD 350A
Cooling Capacity			kW	669.4	824.4	987.7	1,152.1
			BTU/h	2,285,600	2,814,800	3,372,400	3,933,700
			usRT	190.3	234.4	280.8	327.6
Power Source	Power Source			3 Ph 380 / 440 / 460 V 60 Hz			
	Power consumption		kW	161.6	206.8	241.2	283.2
	Running Current	380	V	274.2	348.6	406.8	477.4
		400	V	236.8	301.1	351.3	412.3
		415	V	226.5	288.0	336.1	394.4
Compressor	Type			SEMI-HERMETIC SCREW			
	Oil Heator		W	2 × 150		2 × 300	
	Starting Method			Y - Δ STARTING			
Evaporator	Type			SHELL & TUBE TYPE			
	Water Flow Rate		LPM	1,919	2,363	2,831	3,303
	Pressure Drop		KPa	37	52	47	31
	Ref. Max Pressure		MPa	1.6			
	Water Max Pressure		MPa	1.0			
Condenser	Type			SHELL & TUBE TYPE			
	Water Flow Rate		LPM	2,382	2,956	3,523	4,115
	Pressure Drop		KPa	40	46	34	36
	Ref. Max Pressure		MPa	2.7			
	Water Max Pressure		MPa	1.0			
Refrigerant Control				EXPANSION VALVE			
Control Capacity				12.5%(STARTING), 25 ~ 100%			
Safety Parts				DUAL PRESSURE SWITCH, DEFROSTER, OVER CURRENT RELAY, PHASE REVERSAL PROTECTOR, DEFROSTER, DISCHARGE GAS & INTERNAL THERMOSTAT, SAFETY VALVE			
Piping Connection	Chilled Water			150A (6B)	150A (6B)	150A (6B)	150A (6B)
	Cooling Water			150A (6B)	150A (6B)	2 × 125A (5B)	2 × 150A (6B)
	Drain			25A (1B)			
Pefrigerant	Type			R - 407C			
	Charged Volume		kg	2 × 75	2 × 80	2 × 100	2 × 120
Lubricant	Type			CPI SOLEST 120			
	Charged Volume		ℓ	2 × 16	2 × 15	2 × 18	2 × 23
Weight	Net		kg	3,800	4,100	6,300	7,400
	Operating		kg	4,450	4,880	7,240	8,560

※ Note
1. Inlet/outlet temp. of chilled water : 12/7°C(53.6/44.6°F)
2. Inlet/outlet temp. of cooling water : 30/35°C(86/95°F)
3. Fouling factor : 0.000086m^{2}°C/W(0.00049ft^{2}°C/BTU)
4. These specifications are subject to alternation for technical improvment without notice.

Water Cooled Type(R-407C)

Standard Specification(60Hz)

GWRD 400~500A, GWRT 150~180A

Specification			Model	GWRD 400A	GWRD 500A	GWRT 150A	GWRT 180A
Cooling Capacity			kW	1,310.9	1,649.4	514.7	580.3
			BTU/h	4,475,900	5,631,700	1,757,400	1,981,300
			usRT	372.8	469.0	146.3	165.0
Power Source	Power Source			3 Ph 380 / 440 / 460 V 60 Hz			
	Power consumption		kW	314.2	399.6	132.3	149.4
	Running Current	380	V	529.8	666.8	228.3	254.1
		400	V	457.6	575.9	197.2	219.5
		415	V	437.7	550.8	188.6	209.9
Compressor	Type			SEMI-HERMETIC SCREW			
	Oil Heator		W	2 × 300		3 × 150	
	Starting Method			Y - Δ STARTING			
Evaporator	Type			SHELL & TUBE TYPE			
	Water Flow Rate		LPM	3,758	4,728	1,475	1,664
	Pressure Drop		KPa	61	46	52	47
	Ref. Max Pressure		MPa	1.6			
	Water Max Pressure		MPa	1.0			
Condenser	Type			SHELL & TUBE TYPE			
	Water Flow Rate		LPM	4,659	5,874	1,855	2,092
	Pressure Drop		KPa	39	45	43	40
	Ref. Max Pressure		MPa	2.7			
	Water Max Pressure		MPa	1.0			
Refrigerant Control				EXPANSION VALVE			
Control Capacity				17.5%, 35 ~ 100%	15%, 30 ~ 100%	11%, 22 ~ 100%	8.3%, 16.7 ~ 100%
Safety Parts				DUAL PRESSURE SWITCH, DEFROSTER, OVER CURRENT RELAY, PHASE REVERSAL PROTECTOR, DEFROSTER, DISCHARGE GAS & INTERNAL THERMOSTAT, SAFETY VALVE			
Piping Connection	Chilled Water			150A (6B)	200A (8B)	125A (5B)	125A (5B)
	Cooling Water			2 × 150A (6B)	2 × 150A (6B)	125A (5B)	150A (6B)
	Drain			25A (1B)			
Pefrigerant	Type			R - 407C			
	Charged Volume		kg	280	300	100	120
Lubricant	Type			CPI SOLEST 120			
	Charged Volume		ℓ	2 × 23	2 × 28	3 × 7	3 × 8
Weight	Net		kg	7,640	9,200	2,515	3,200
	Operating		kg	8,940	10,760	2,775	3,510

※ Note
1. Inlet/outlet temp. of chilled water : 12/7°C(53.6/44.6°F)
2. Inlet/outlet temp. of cooling water : 30/35°C(86/95°F)
3. Fouling factor : 0.000086m²°C/W(0.00049ft²°C/BTU)
4. These specifications are subject to alternation for technical improvment without notice.

Standard Specification(60Hz)

GWRF 200~700A

Specification \ Model				GWRF 200A	GWRF 240A	GWRF 600A	GWRF 700A
Cooling Capacity			kW	654.6	755.0	1,927.4	2,199.4
			BTU/h	2,235,000	2,577,800	6,580,900	7,509,600
			usRT	186.1	214.7	548.1	625.4
Power Source	Power Source			3 Ph 380 / 440 / 460 V 60 Hz			
	Power consumption		kW	177.2	200.4	479.2	562.4
	Running Current	380	V	305.6	340.8	807.6	948.0
		400	V	263.9	294.3	697.5	818.7
		415	V	252.5	281.5	667.1	783.1
Compressor	Type			SEMI-HERMETIC SCREW			
	Oil Heator		W	4 × 150		4 × 300	
	Starting Method			Y - Δ STARTING			
Evaporator	Type			SHELL & TUBE TYPE			
	Water Flow Rate		LPM	1,877	2,164	5,525	6,305
	Pressure Drop		KPa	41	41	39	51
	Ref. Max Pressure		MPa	1.6			
	Water Max Pressure		MPa	1.0			
Condenser	Type			SHELL & TUBE TYPE			
	Water Flow Rate		LPM	2,384	2,739	6,899	7,917
	Pressure Drop		KPa	21	28	53	60
	Ref. Max Pressure		MPa	2.7			
	Water Max Pressure		MPa	1.0			
Refrigerant Control				EXPANSION VALVE			
Control Capacity				8.25%, 16.5 ~ 100%	6.25%(STARTING), 12.5 ~ 100%		
Safety Parts				DUAL PRESSURE SWITCH, DEFROSTER, OVER CURRENT RELAY, PHASE REVERSAL PROTECTOR, DEFROSTER, DISCHARGE GAS & INTERNAL THERMOSTAT, SAFETY VALVE			
Piping Connection	Chilled Water			150A (6B)	150A (6B)	200A (8B)	200A (8B)
	Cooling Water			2 × 100A (4B)	2 × 125A (5B)	2 × 150A (6B)	2 × 150A (6B)
	Drain			25A (1B)			
Pefrigerant	Type			R - 407C			
	Charged Volume		kg	150	160	330	360
Lubricant	Type			CPI SOLEST 120			
	Charged Volume		ℓ	4 × 7	4 × 8	4 × 18	4 × 23
Weight	Net		kg	3,880	4,400	9,500	9,700
	Operating		kg	4,420	5,080	11,060	11,260

※ Note
1. Inlet/outlet temp. of chilled water : 12/7°C(53.6/44.6°F)
2. Inlet/outlet temp. of cooling water : 30/35°C(86/95°F)
3. Fouling factor : 0.000086m^{2}°C/W(0.00049ft^{2}°C/BTU)
4. These specifications are subject to alternation for technical improvment without notice.

Water Cooled Type(R-407C)

Demension Data_

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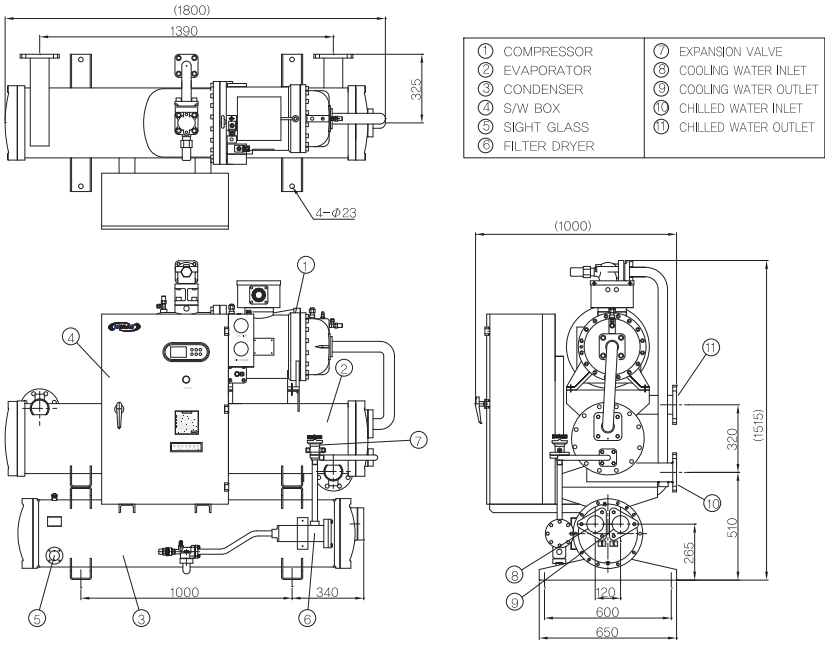

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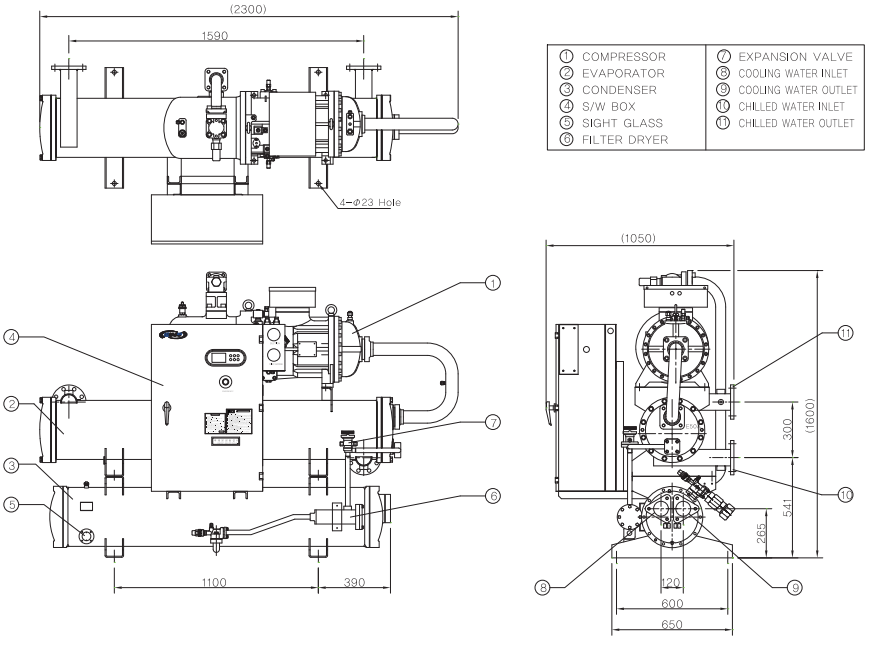

Demension Data_

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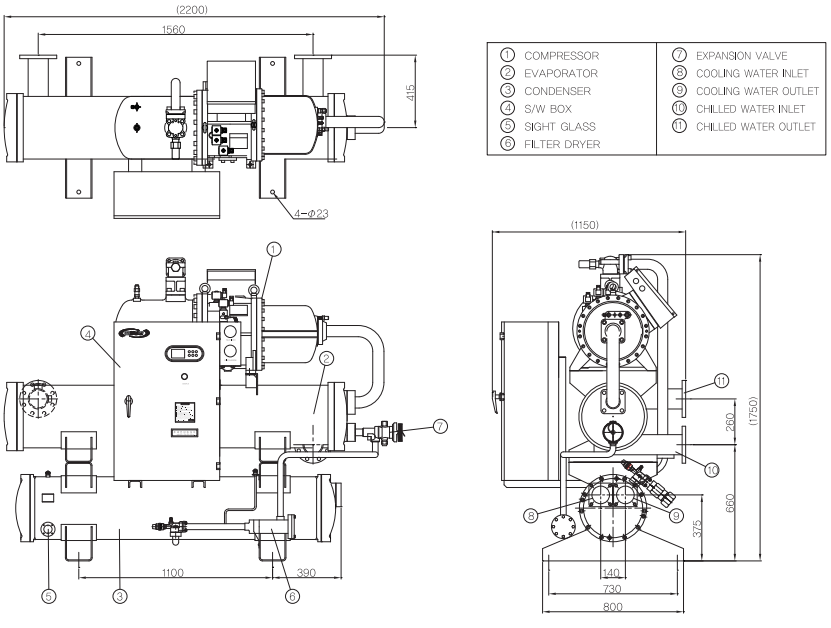
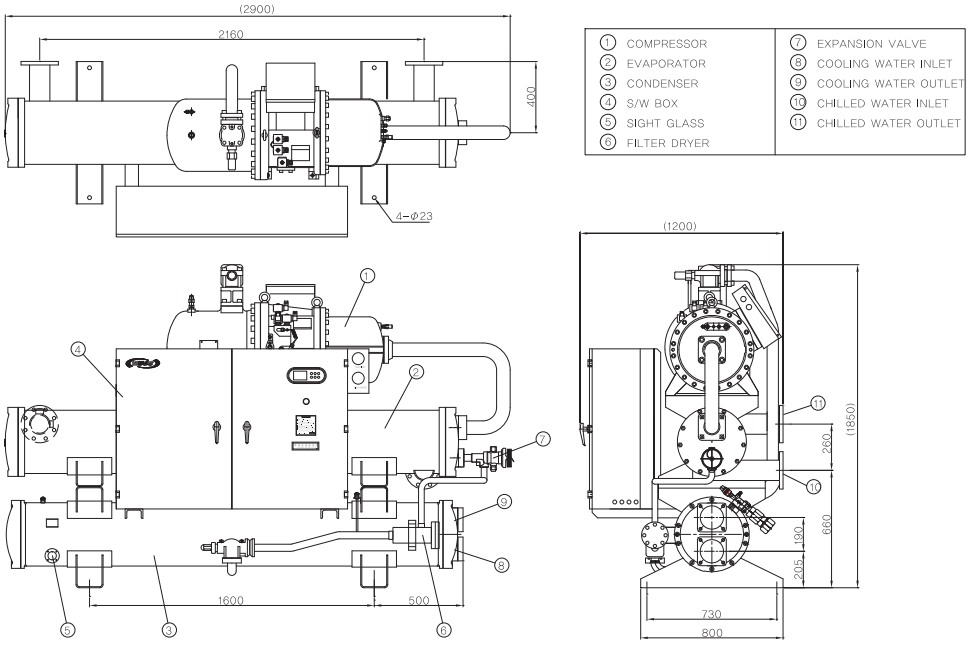


① COMPRESSOR	⑦ EXPANSION VALVE
② EVAPORATOR	⑧ COOLING WATER INLET
③ CONDENSER	⑨ COOLING WATER OUTLET
④ S/W BOX	⑩ CHILLED WATER INLET
⑤ SIGHT GLASS	⑪ CHILLED WATER OUTLET
⑥ FILTER DRYER	

GWR(I, L)S 080A

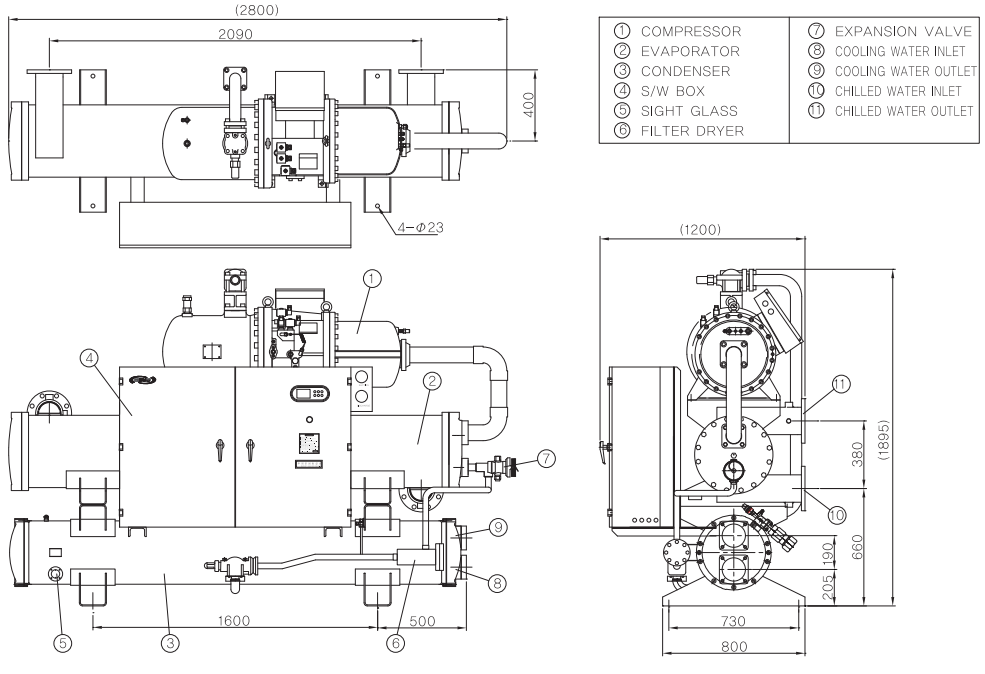


① COMPRESSOR	⑦ EXPANSION VALVE
② EVAPORATOR	⑧ COOLING WATER INLET
③ CONDENSER	⑨ COOLING WATER OUTLET
④ S/W BOX	⑩ CHILLED WATER INLET
⑤ SIGHT GLASS	⑪ CHILLED WATER OUTLET
⑥ FILTER DRYER	

Water Cooled Type(R-407C)

Demension Data_

GWR(I, L)S 100A



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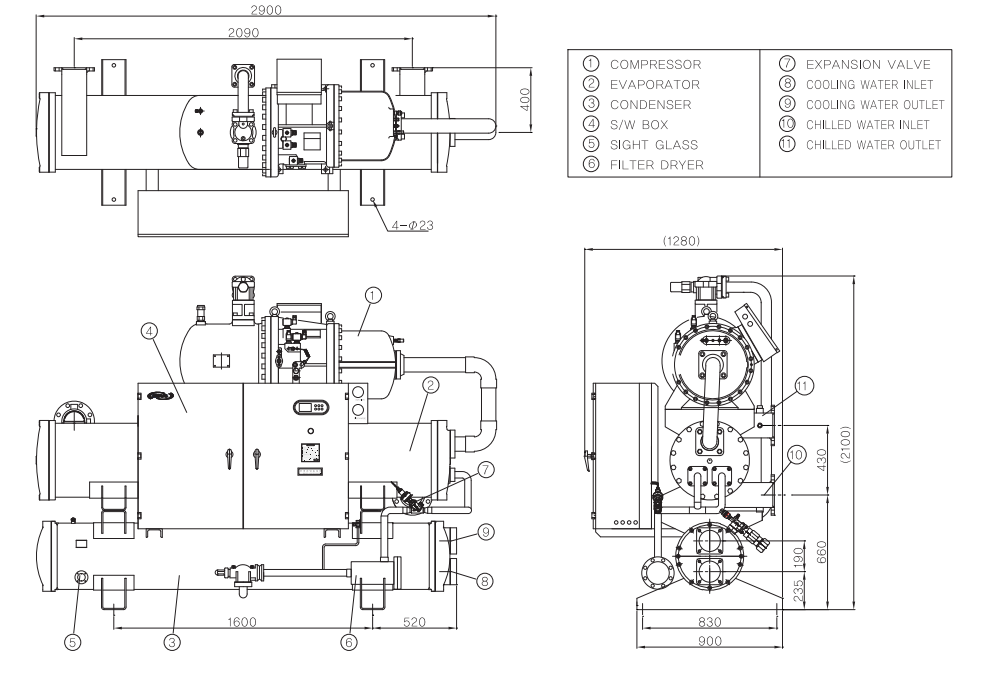
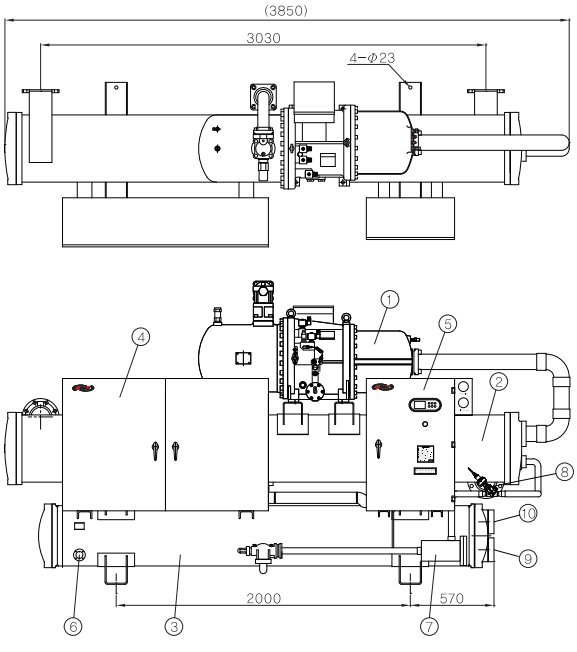
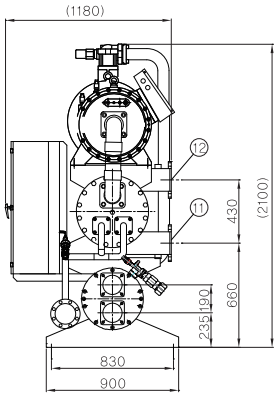


Demension Data_

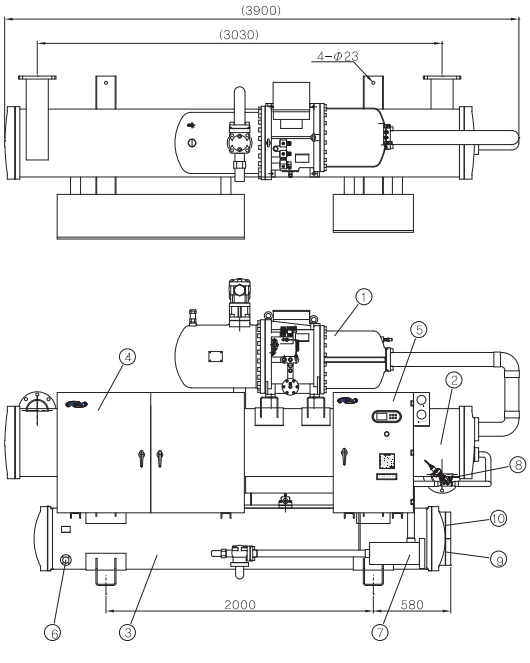
GWR(I, L)S 150A



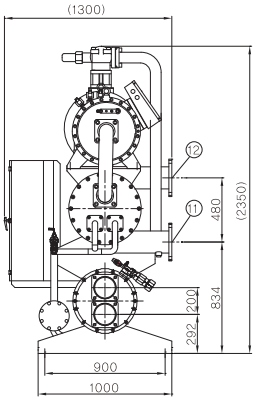
① COMPRESSOR	⑦ FILTER DRYER
② EVAPORATOR	⑧ EXPANSION VALVE
③ CONDENSER	⑨ COOLING WATER INLET
④ STARTER	⑩ COOLING WATER OUTLET
⑤ CONTROLER	⑪ CHILLED WATER INLET
⑥ SIGHT GLASS	⑫ CHILLED WATER OUTLET



GWR(I, L)S 175A



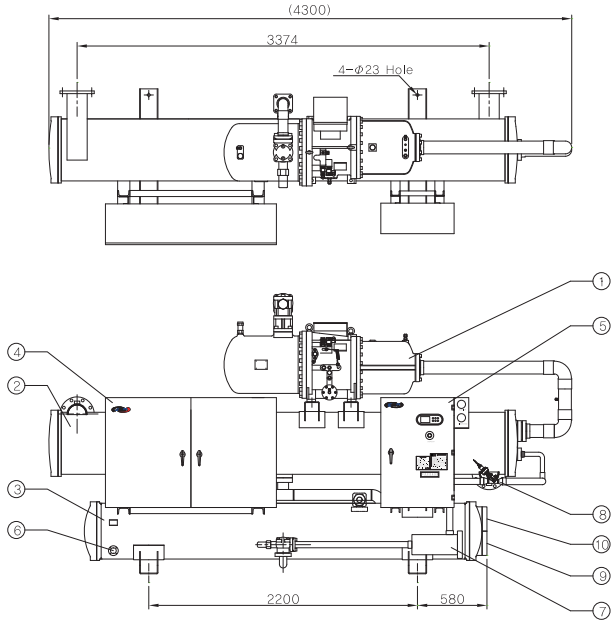
① COMPRESSOR	⑦ FILTER DRYER
② EVAPORATOR	⑧ EXPANSION VALVE
③ CONDENSER	⑨ COOLING WATER INLET
④ STARTER	⑩ COOLING WATER OUTLET
⑤ CONTROLER	⑪ CHILLED WATER INLET
⑥ SIGHT GLASS	⑫ CHILLED WATER OUTLET



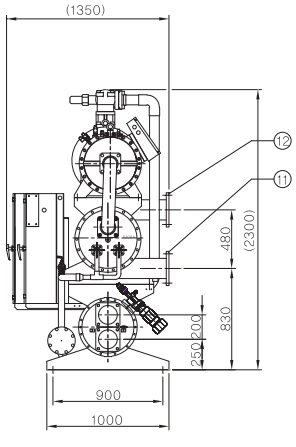
Water Cooled Type(R-407C)

Demension Data_

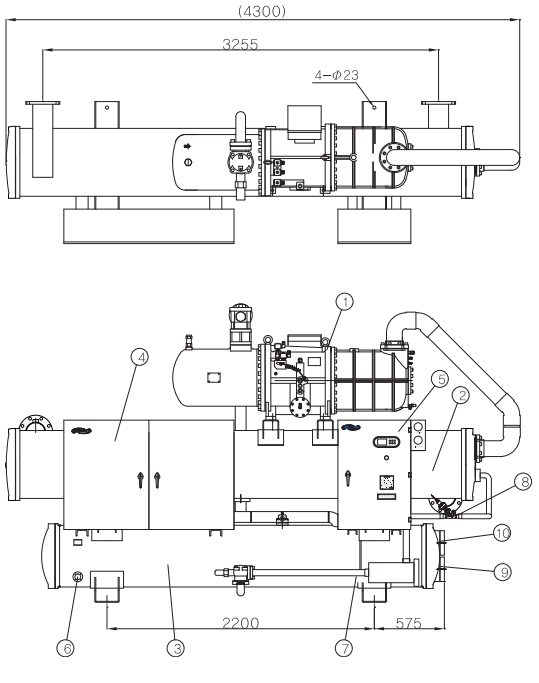
GWR(I, L)S 200A



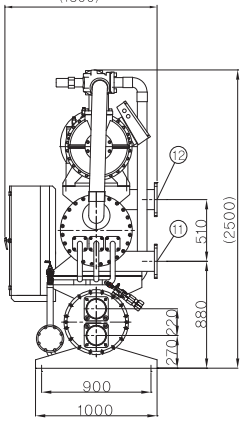
① COMPRESSOR	⑦ FILTER DRYER
② EVAPORATOR	⑧ EXPANSION VALVE
③ CONDENSER	⑨ COOLING WATER INLET
④ STARTER	⑩ COOLING WATER OUTLET
⑤ CONTROLER	⑪ CHILLED WATER INLET
⑥ SIGHT GLASS	⑫ CHILLED WATER OUTLET



GWR(I, L)S 250A

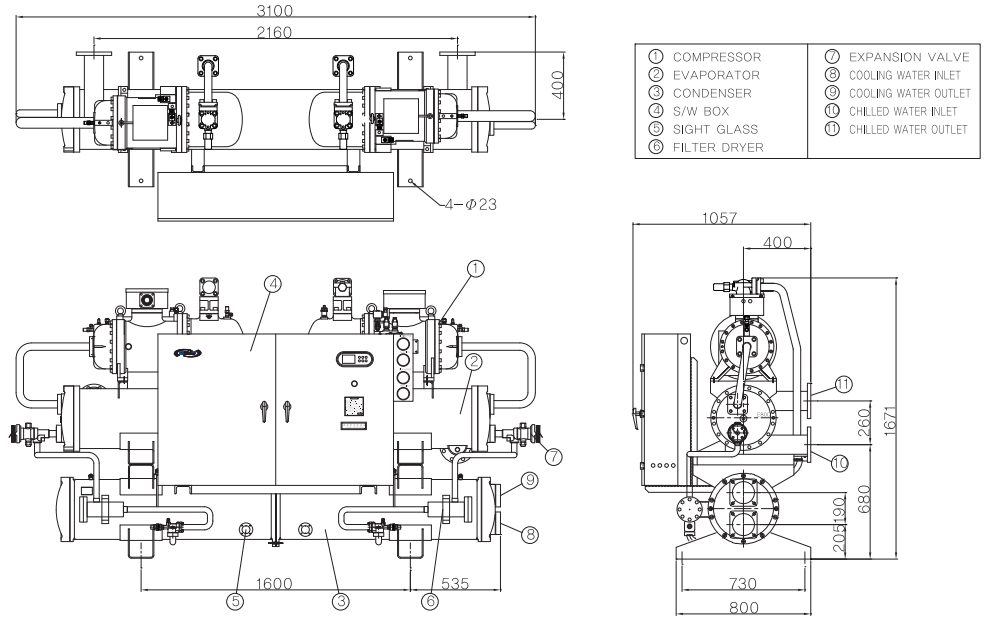


① COMPRESSOR	⑦ FILTER DRYER
② EVAPORATOR	⑧ EXPANSION VALVE
③ CONDENSER	⑨ COOLING WATER INLET
④ STARTER	⑩ COOLING WATER OUTLET
⑤ CONTROLER	⑪ CHILLED WATER INLET
⑥ SIGHT GLASS	⑫ CHILLED WATER OUTLET

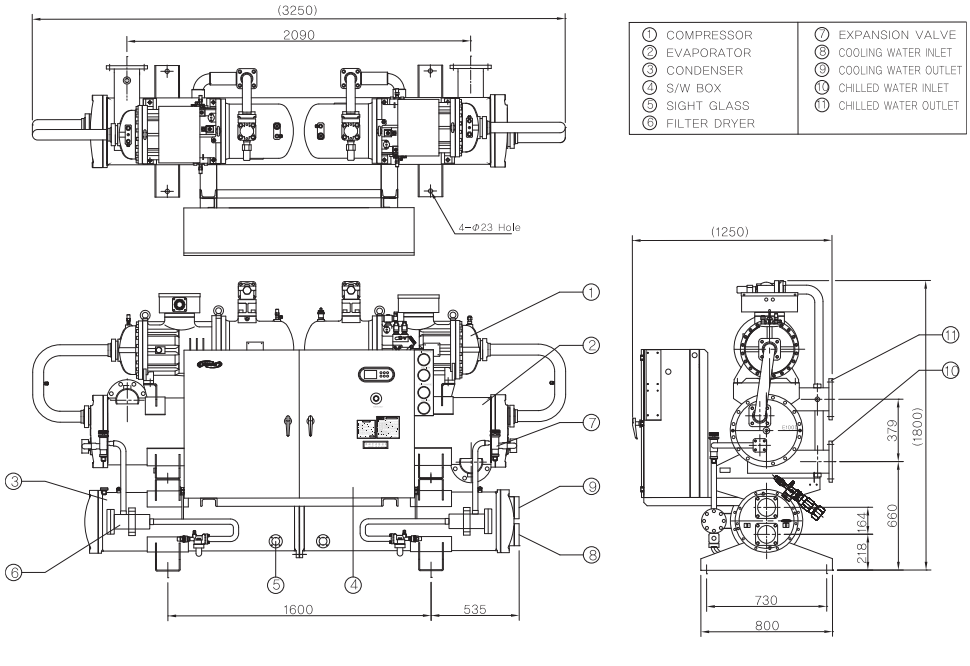


Demension Data_

GWR(I, L)D 080A



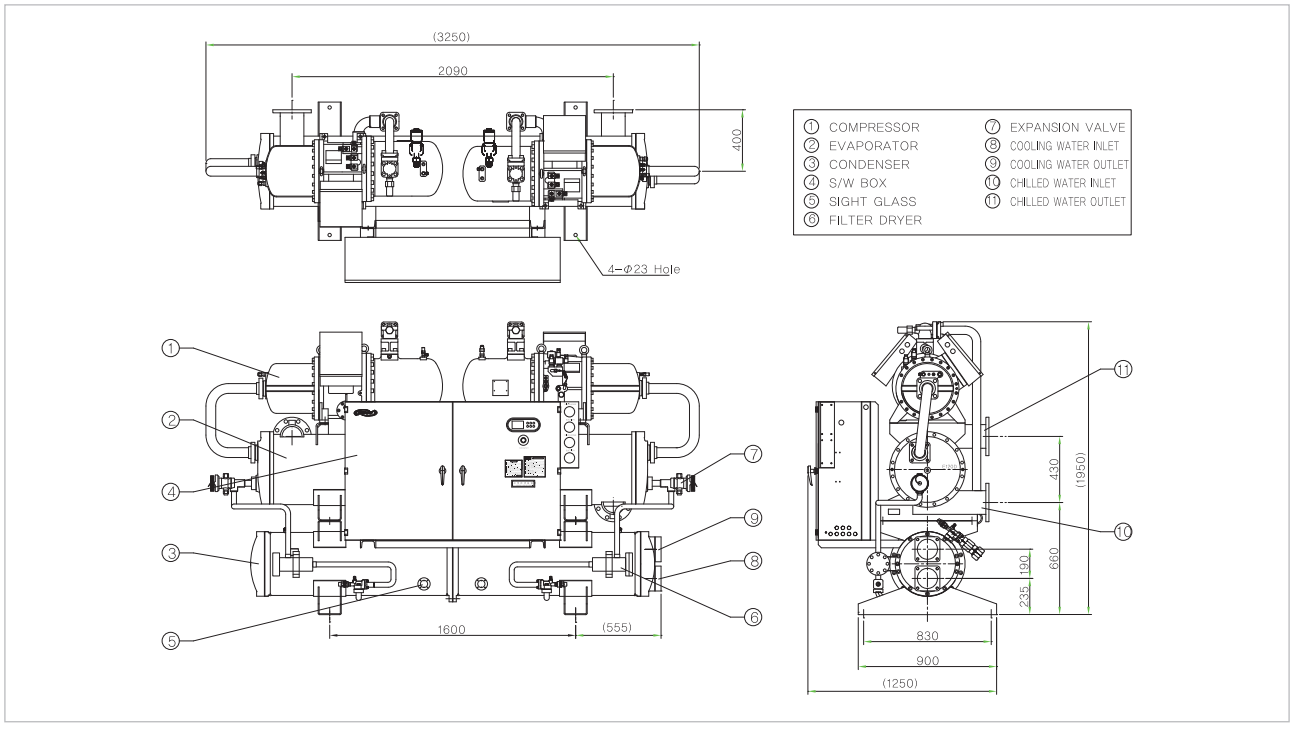
GWR(I, L)D 100A



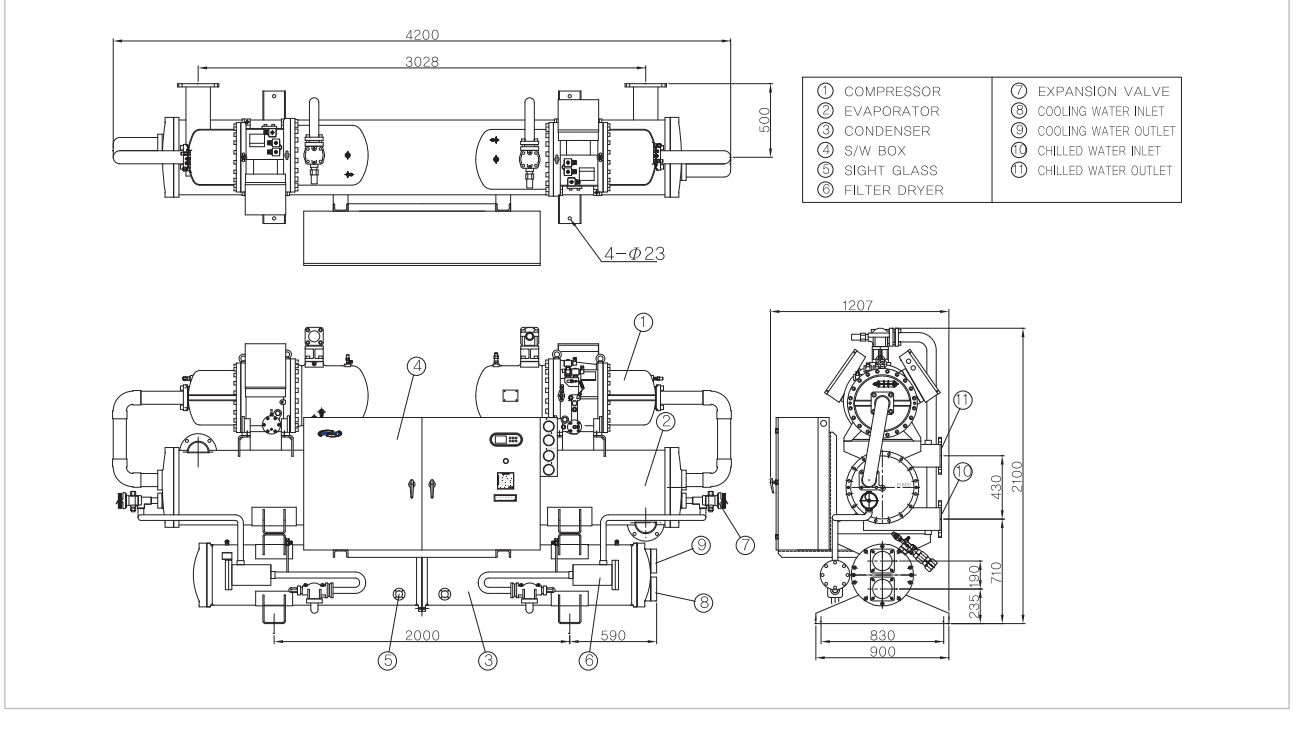
Water Cooled Type(R-407C)

Demension Data_

GWR(I, L)D 120A

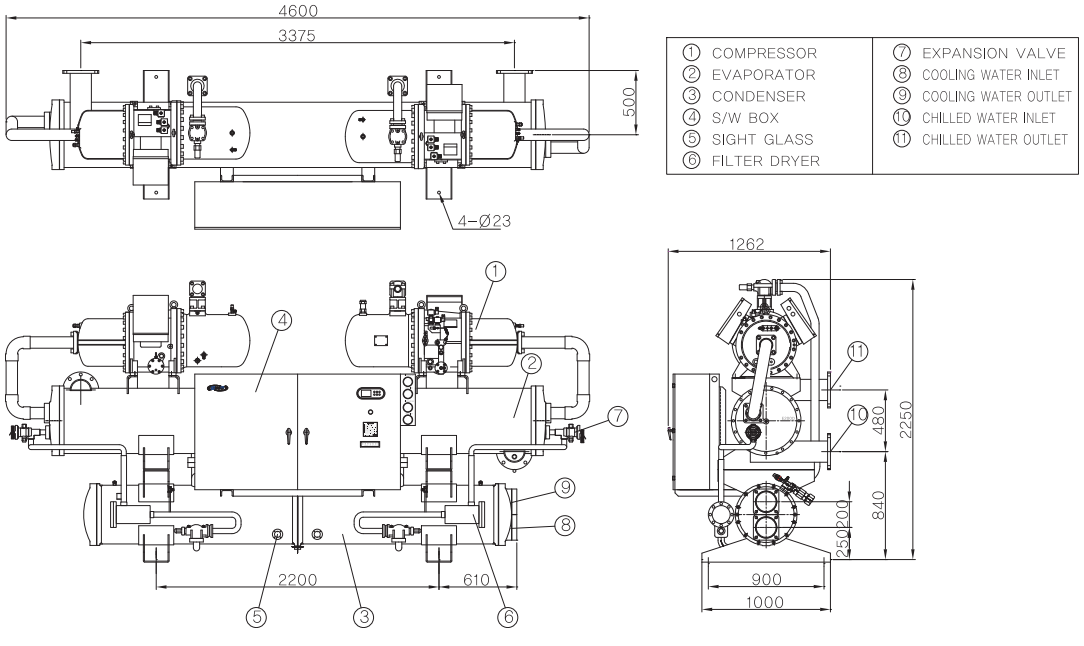


GWR(I, L)D 160A



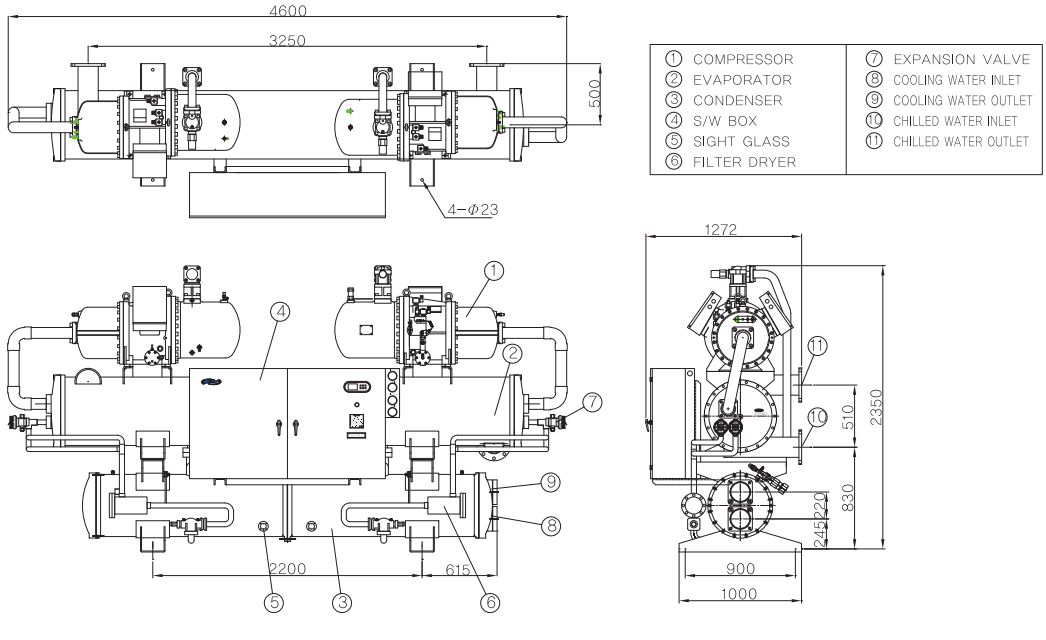
Demension Data_

GWR(I, L)D 200A



① COMPRESSOR	⑦ EXPANSION VALVE
② EVAPORATOR	⑧ COOLING WATER INLET
③ CONDENSER	⑨ COOLING WATER OUTLET
④ S/W BOX	⑩ CHILLED WATER INLET
⑤ SIGHT GLASS	⑪ CHILLED WATER OUTLET
⑥ FILTER DRYER	

GWR(I, L)D 250A

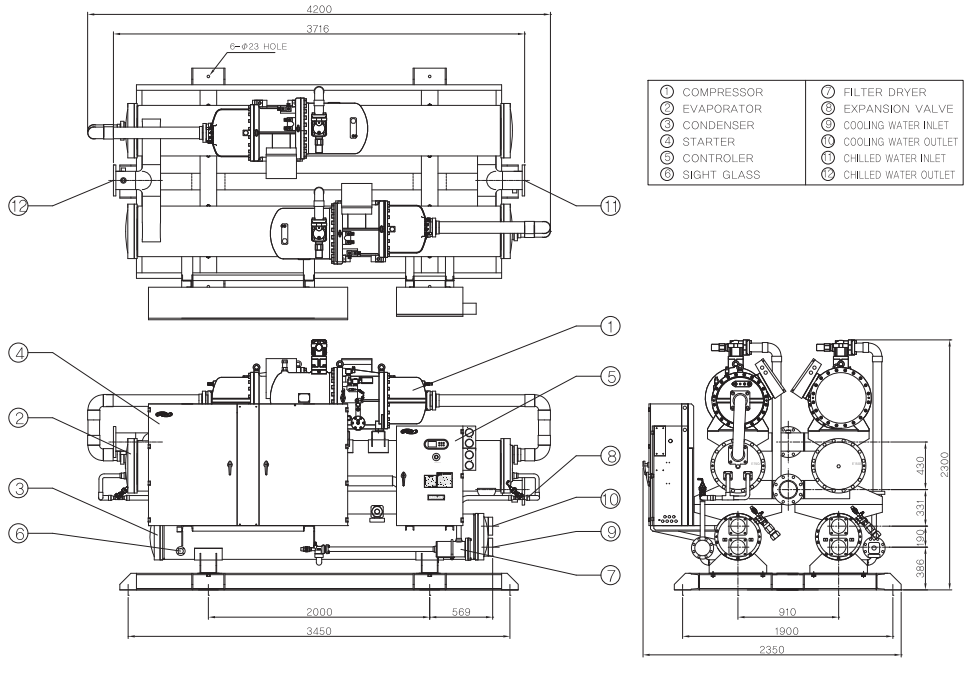


① COMPRESSOR	⑦ EXPANSION VALVE
② EVAPORATOR	⑧ COOLING WATER INLET
③ CONDENSER	⑨ COOLING WATER OUTLET
④ S/W BOX	⑩ CHILLED WATER INLET
⑤ SIGHT GLASS	⑪ CHILLED WATER OUTLET
⑥ FILTER DRYER	

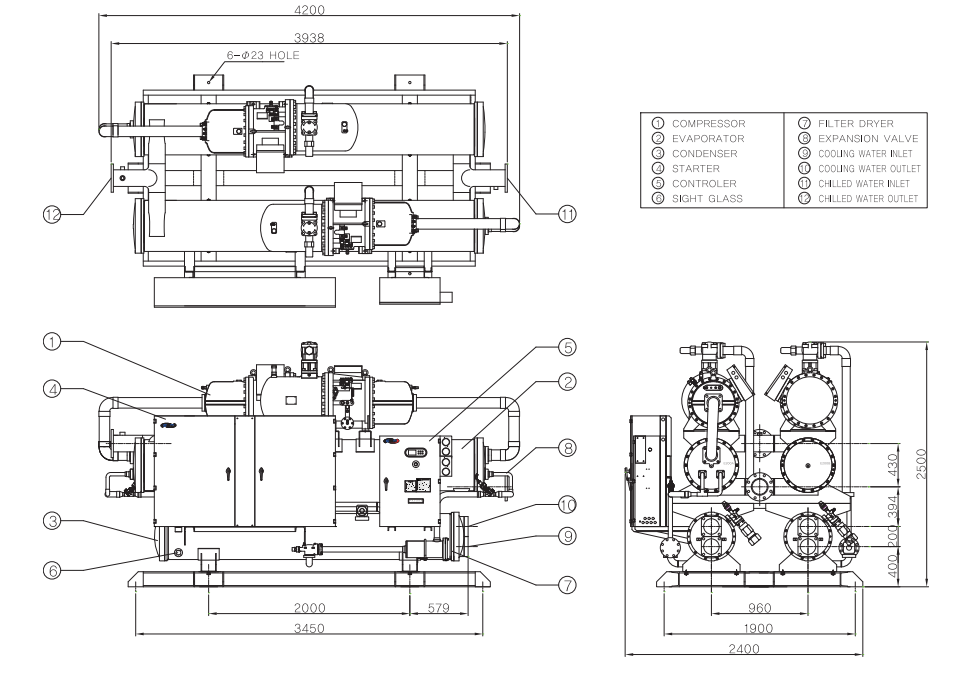
Water Cooled Type(R-407C)

Demension Data_

GWR(I, L)D 300A

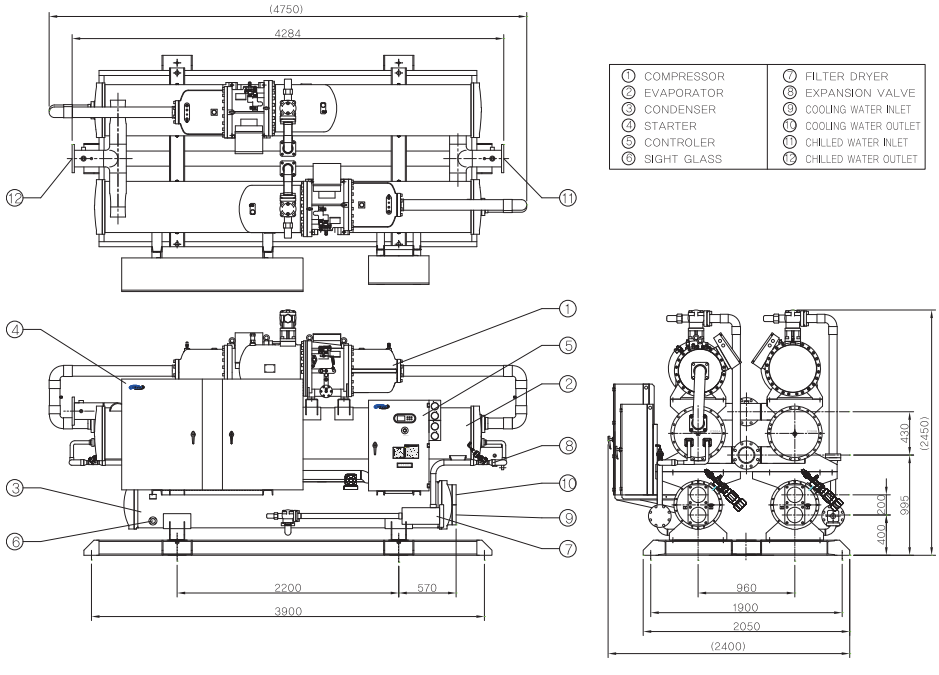


GWR(I, L)D 350A

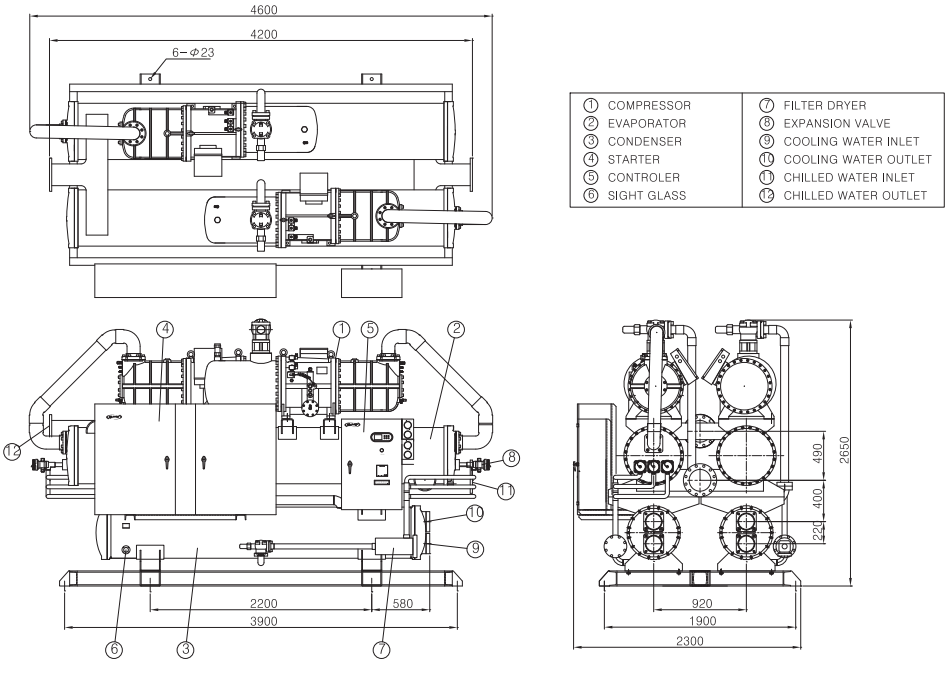


Demension Data_

GWR(I, L)D 400A



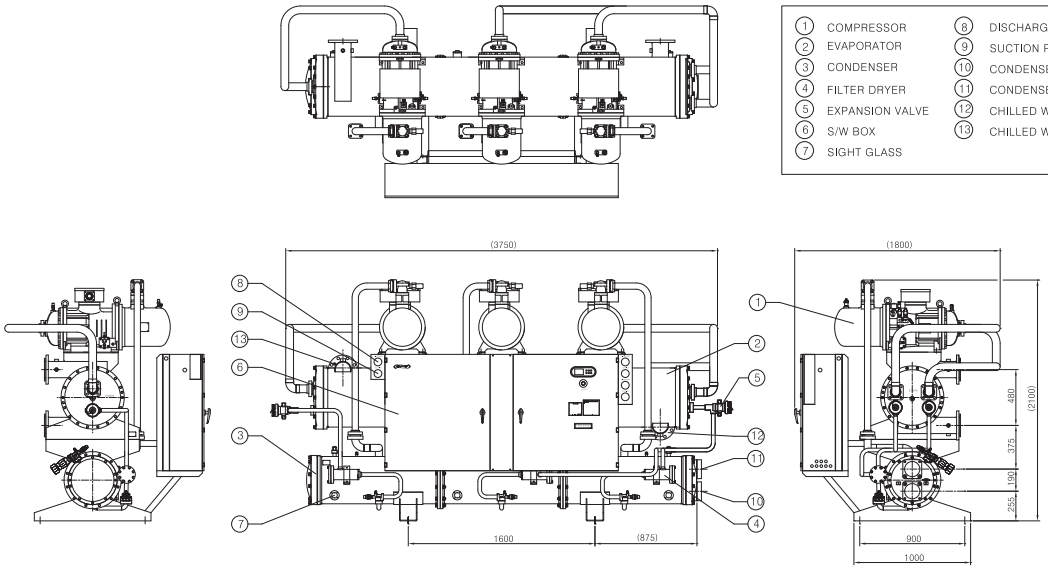
GWR(I, L)D 500A



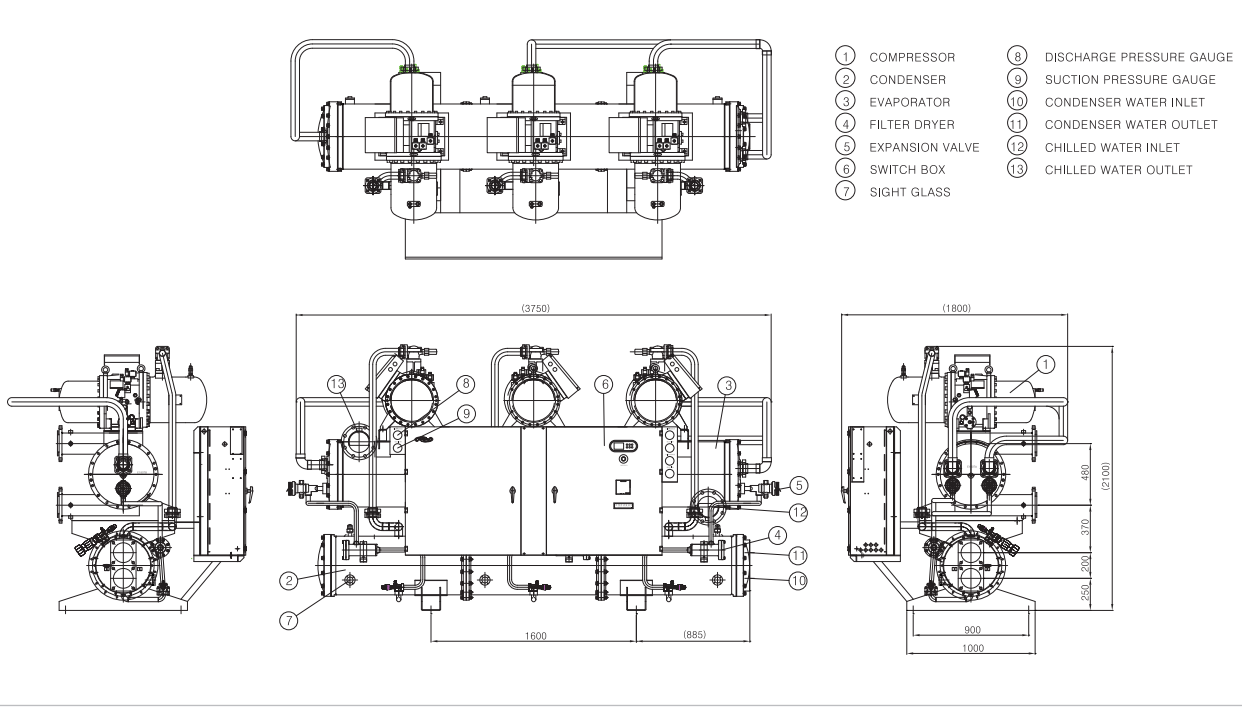
Water Cooled Type(R-407C)

Demension Data_

GWR(I, L)T 150A

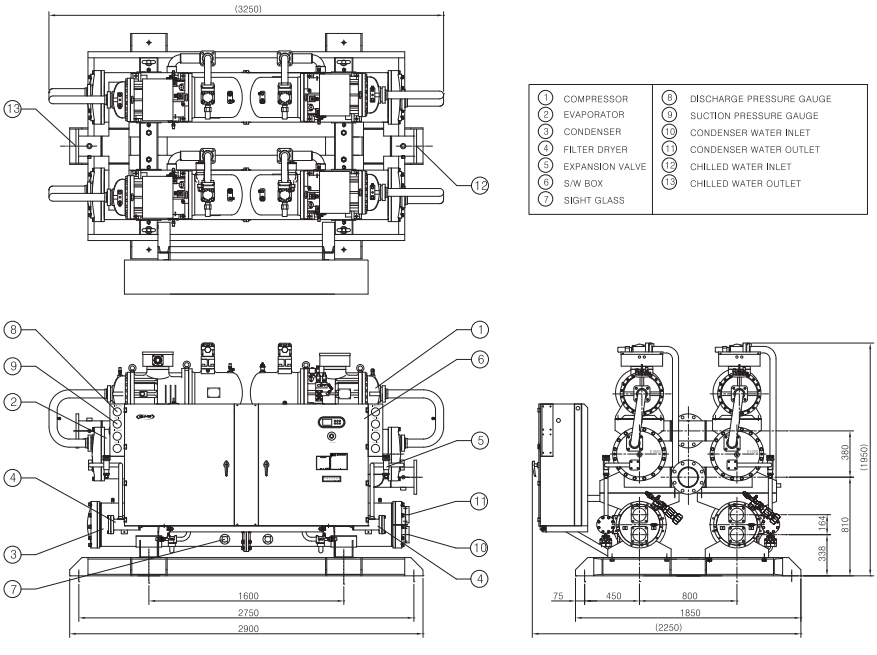


GWR(I, L)T 180A

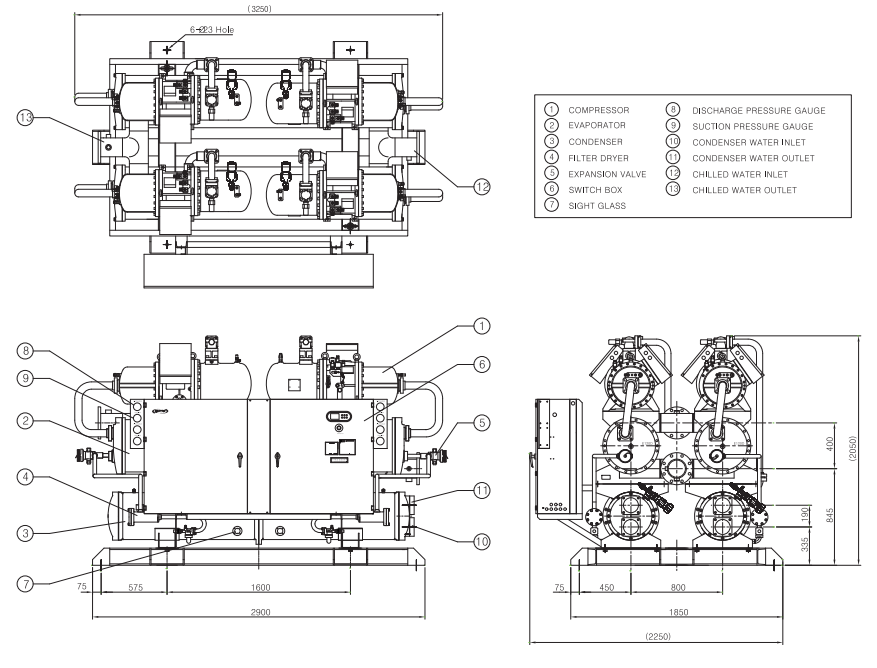


Demension Data_

GWR(I,L)F 200A



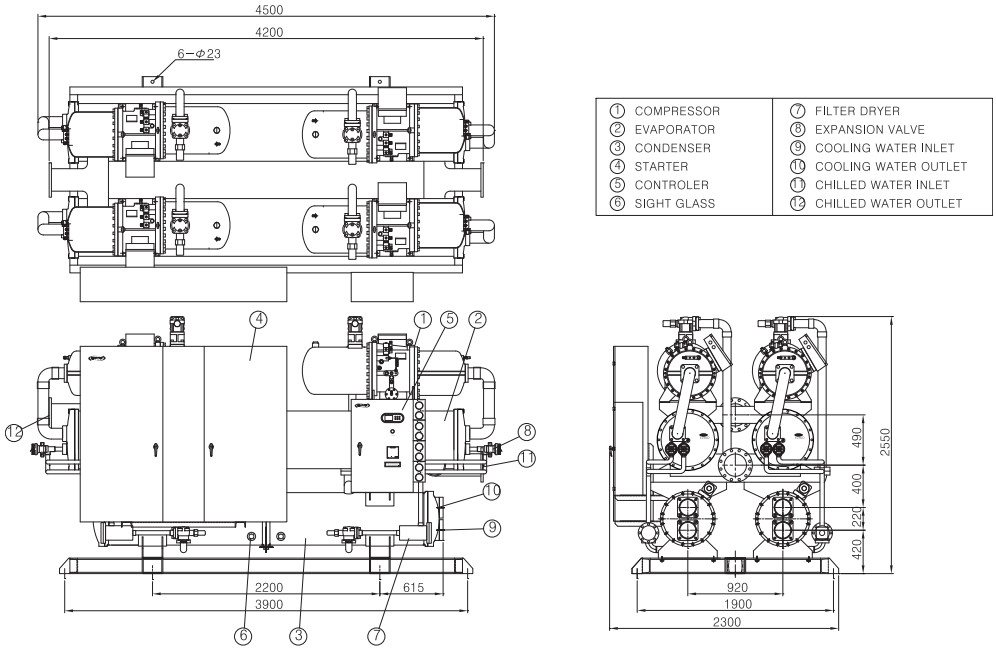
GWR(I,L)F 240A



Water Cooled Type(R-407C)

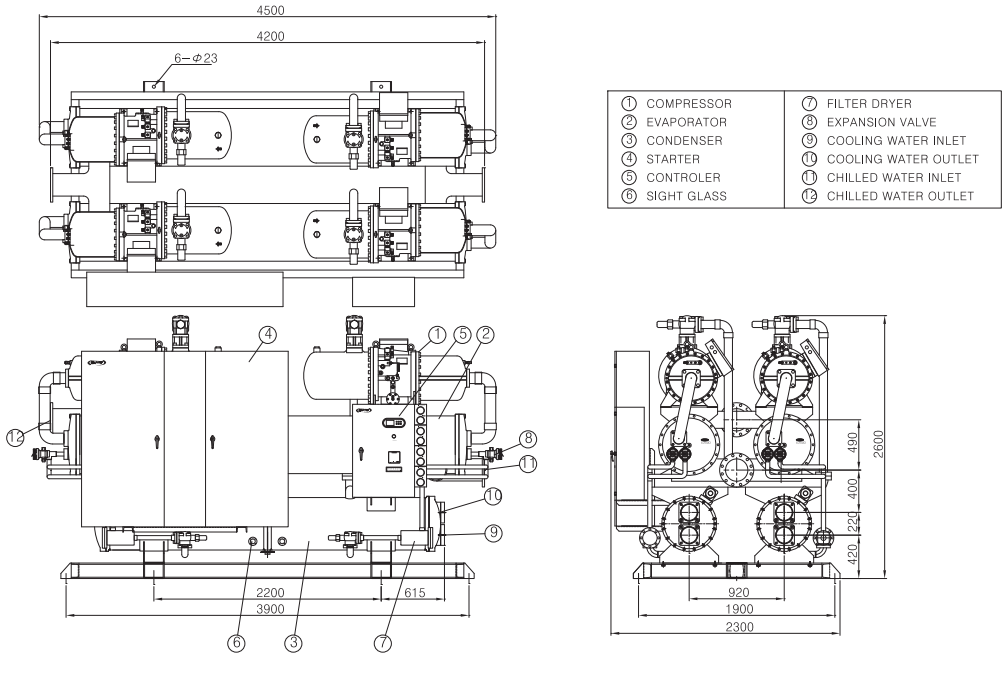
Demension Data_

GWR(I, L)F 600A



① COMPRESSOR	⑦ FILTER DRYER
② EVAPORATOR	⑧ EXPANSION VALVE
③ CONDENSER	⑨ COOLING WATER INLET
④ STARTER	⑩ COOLING WATER OUTLET
⑤ CONTROLER	⑪ CHILLED WATER INLET
⑥ SIGHT GLASS	⑫ CHILLED WATER OUTLET

GWR(I, L)F 700A



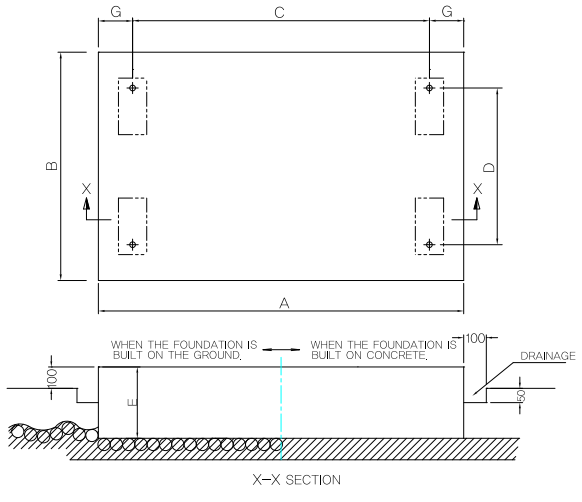
① COMPRESSOR	⑦ FILTER DRYER
② EVAPORATOR	⑧ EXPANSION VALVE
③ CONDENSER	⑨ COOLING WATER INLET
④ STARTER	⑩ COOLING WATER OUTLET
⑤ CONTROLER	⑪ CHILLED WATER INLET
⑥ SIGHT GLASS	⑫ CHILLED WATER OUTLET

Water Cooled Type(R-407C)

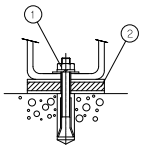
Installation & Application Data_

GWR(I, L)S 030A~250A

〈PLANT〉



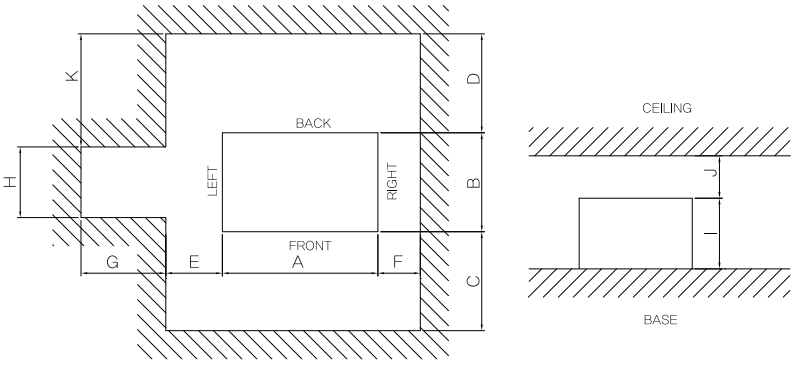
NO	MODEL	A	B	C	D	E	G	ANCHOR BOLT
1	GW*S 030A	1800	1000	1000	600	300	400	M16 x 150L
2	040A	1800	1050	1000	600	300	400	
3	050A	2100	1050	1100	600	300	500	
4	060A	2100	1200	1100	730	300	500	
5	080A	3200	1200	1600	730	350	800	
6	100A	3200	1200	1600	730	350	800	
7	125A	3200	1300	1600	830	400	800	
8	150A	4000	1300	2000	830	400	1000	
9	175A	4200	1300	2000	900	400	1100	
10	200A	4400	1300	2200	900	400	1100	
11	250A	4400	1300	2200	900	400	1100	



THE METHOD OF BASE CONSTRUCTION WORK

NOTE.
1)THE MAKER SUPPLIES THE ANCHOR BOLT, ISOLATION PAD.
2)THE BASE CONSTRUCTION SHOULD BE WORKED BY A CUSTOMER.

〈SPACE〉



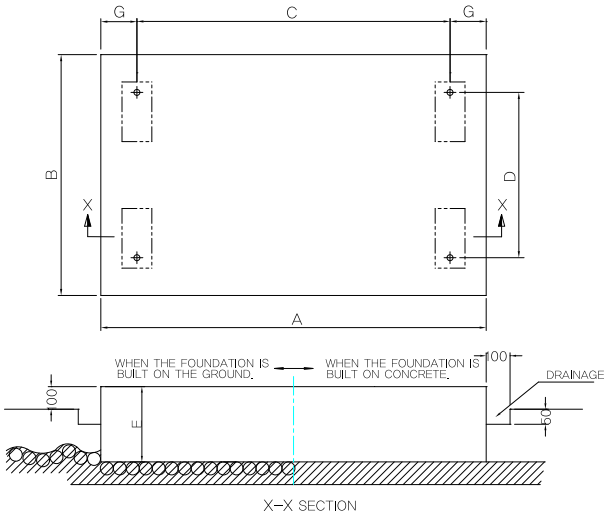
NO	MODEL	A	B	C	D	E	F	G	H	I	J	K
1	GW*S 030A	1800	1000	1500	800	600	800	1300	450	1550	1000	1300
2	040A	1800	1000	1500	800	600	800	1300	450	1550	1000	1300
3	050A	2300	1050	1100	800	600	800	1700	450	1600	1000	1300
4	060A	2300	1150	1500	800	600	800	1800	500	1750	1000	1350
5	080A	2900	1200	1500	1000	800	1000	2000	500	1850	1100	1450
6	100A	2800	1200	1500	1000	800	1000	2000	500	1900	1100	1530
7	125A	2900	1300	1500	1000	800	1000	2000	500	2100	1200	1530
8	150A	3850	1200	1500	1000	1000	1000	2800	600	2100	1300	1500
9	175A	3900	1300	1500	1000	1000	1200	3000	700	2350	1400	1475
10	200A	4300	1350	1500	1000	1000	1200	3300	700	2300	1400	1475
11	250A	4300	1300	1500	1000	1000	1200	3400	700	2500	1400	1475

Water Cooled Type(R-407C)

Installation & Application Data_

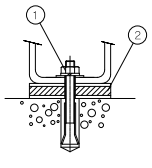
GWR(I, L)D 080A~250A, GWR(I, L)T 150A, 180A

PLANT



X-X SECTION

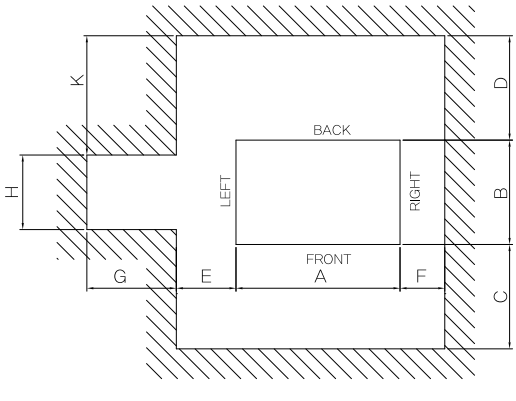
NO	MODEL	A	B	C	D	E	G	ANCHOR BOLT
1	GW*D 080A	3200	1200	1600	730	350	800	M16 x 150L
2	100A	3200	1300	1600	730	350	800	
3	120A	3200	1300	1600	830	400	800	
4	160A	4200	1300	2000	830	400	1100	
5	200A	4400	1300	2200	900	400	1100	
6	250A	4400	1300	2200	900	400	1100	
7	GW*T 150A	4200	1300	1600	900	400	1300	
8	180A	4200	1300	1600	900	400	1300	

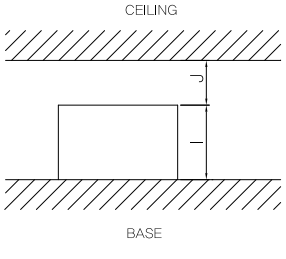


THE METHOD OF BASE CONSTRUCTION WORK

NOTE.
1)THE MAKER SUPPLIES THE ANCHOR BOLT, ISOLATION PAD.
2)THE BASE CONSTRUCTION SHOULD BE WORKED BY A CUSTOMER.

SPACE



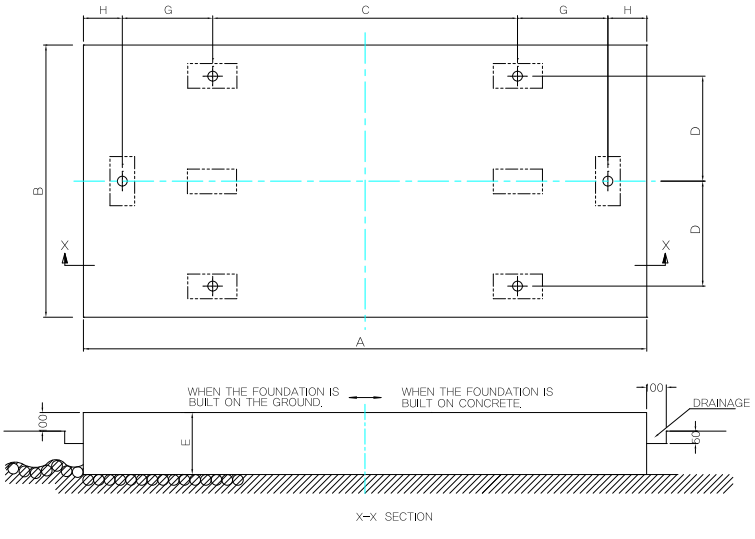


NO	MODEL	A	B	C	D	E	F	G	H	I	J	K
1	GW*D 080A	3100	1100	1500	1000	800	1000	2400	400	1700	1100	1450
2	100A	3250	1250	1500	1000	800	1000	2400	450	1800	1100	1530
3	120A	3250	1250	1500	1000	800	1000	2550	450	1950	1200	1530
4	160A	4200	1250	1500	1000	1000	1200	3300	600	2100	1400	1475
5	200A	4600	1300	1500	1000	1000	1200	3700	600	2250	1400	1475
6	250A	4600	1300	1500	1000	1000	1200	3700	600	2350	1400	1475
7	GW*T 150A	3750	1800	1500	1000	1000	1200	2700	600	2100	1400	1475
8	180A	3750	1800	1500	1000	1000	1200	2700	600	2100	1400	1475

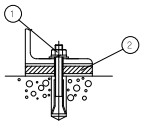
Installation & Application Data_

GWR(I, L)D 300A~500A, GWR(I, L)F 200A~700A

〈PLANT〉



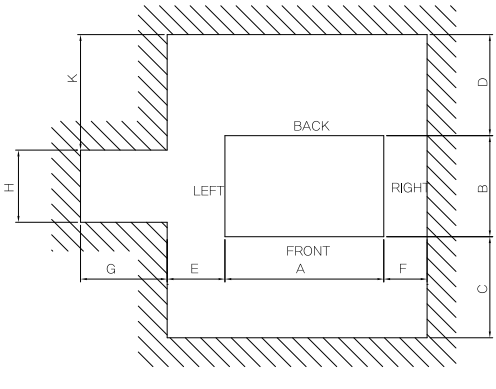
NO	MODEL	A	B	C	D	E	G	H	ANCHOR BOLT
1	GW*D300A	3950	2400	2000	950	400	725	250	M16 x 150L
2	350A	3950	2400	2000	950	400	725	250	
3	400A	4400	2400	2200	950	400	850	250	
4	500A	4400	2400	2200	950	400	850	250	
5	GW*F200A	3250	2200	1600	850	400	575	250	
6	240A	3250	2200	1600	850	400	575	250	
7	600A	4400	2400	2200	950	400	850	250	
8	700A	4400	2400	2200	950	400	850	250	

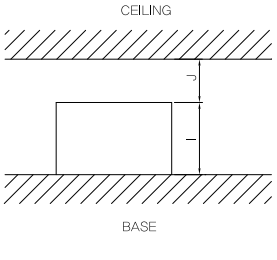


THE METHOD OF BASE CONSTRACTION WORK

NOTE) 1.THE MAKER SUPPLIES THE ANCHOR BOLT.
2.THE BASE CONSTRUCTION SHOULD BE WORKED BY A CUSTOMER.

〈SPACE〉





NO	MODEL	A	B	C	D	E	F	G	H	I	J	K
1	GW*D300A	4200	2350	1500	1000	1000	1200	3200	1300	2300	1300	1550
2	350A	4200	2400	1500	1000	1000	1200	3300	1300	2500	1400	1550
3	400A	4750	2400	1500	1000	1000	1200	3700	1300	2450	1400	1550
4	500A	4600	2300	1500	1000	1000	1200	3700	1400	2650	1500	1550
5	GW*F200A	3250	2250	1500	1000	1000	1200	3000	1300	1950	1300	1500
6	240A	3250	2250	1500	1000	1000	1200	3000	1300	2050	1300	1500
7	600A	4500	2300	1500	1000	1000	1200	3600	1400	2550	1400	1550
8	700A	4500	2300	1500	1000	1000	1200	3600	1400	2600	1400	1550

Performance Data

R-134a Type(60Hz)

↘ TWRS 020A~TWRS 065A

Model	LCWT	Cooling Water Outet Temperature (°C)											
		5°C			7°C			9°C			11°C		
		CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD
		PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa
	°C	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.
		kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.
TWRS 020A	33	61.6	177	35	65.3	187	40	69.9	200	46	75.1	215	52
		16.1	223	27	16.9	236	30	17.1	249	33	17.3	265	36
	35	60.5	173	34	65.0	186	38	68.6	197	44	73.8	212	50
		16.8	222	26	17.0	235	29	17.8	248	32	18.0	263	36
	37	59.0	169	32	63.7	183	37	68.2	196	42	72.3	207	48
		17.4	219	26	17.7	233	28	17.9	247	31	18.7	261	35
	39	57.3	164	31	62.4	179	35	66.8	191	40	71.9	206	46
		18.6	218	25	18.4	232	28	18.6	245	31	18.9	260	34
	41	56.1	161	29	60.2	173	33	65.3	187	38	70.3	202	44
		19.4	216	25	19.7	229	27	19.4	243	30	19.7	258	33
TWRS 030A	33	87.6	251	52	92.8	266	61	99.5	285	69	106.4	305	78
		21.2	312	30	22.2	330	33	22.5	350	37	22.8	370	41
	35	86.0	247	50	92.3	265	58	97.6	280	66	104.5	300	75
		22.0	310	29	22.3	329	32	23.4	347	36	23.7	368	40
	37	84.2	241	48	90.5	259	55	97.1	278	63	103.0	295	73
		22.9	307	29	23.2	326	32	23.5	346	35	24.6	366	39
	39	81.5	234	46	88.6	254	53	95.1	273	61	101.8	292	69
		24.5	304	28	24.2	323	31	24.5	343	35	24.8	363	39
	41	79.6	228	44	85.9	246	50	93.1	267	58	99.7	286	66
		25.5	301	28	25.8	320	31	25.5	340	34	25.9	360	38
TWRS 035A	33	114.0	327	42	120.9	347	48	129.9	372	55	139.5	400	63
		26.5	403	49	27.8	426	54	28.1	453	63	28.6	482	67
	35	111.8	320	40	120.3	345	46	127.6	366	53	137.0	393	60
		27.6	400	48	27.9	425	53	29.2	449	59	29.7	478	66
	37	109.6	314	38	117.9	338	44	126.8	363	50	134.9	387	58
		28.6	396	47	29.1	421	52	29.5	448	58	30.7	475	64
	39	106.0	304	37	115.5	331	42	124.2	356	48	133.3	382	55
		30.6	392	46	30.3	418	51	30.7	444	57	31.2	472	63
	41	103.8	298	35	111.6	320	40	121.4	348	46	130.5	374	53
		31.9	389	45	32.3	413	50	32.0	440	56	32.4	467	62
TWRS 040A	33	127.4	365	48	135.3	388	56	145.6	417	63	156.3	448	72
		29.6	450	43	31.0	477	48	31.4	507	54	31.9	540	59
	35	124.9	358	46	134.5	386	58	142.8	409	61	153.5	440	70
		30.8	446	43	31.3	475	47	32.7	503	53	33.1	535	58
	37	122.5	351	45	131.9	378	56	142.1	407	58	150.0	430	67
		32.0	443	42	32.5	471	46	32.9	502	51	34.4	529	57
	39	118.5	340	43	129.3	371	52	139.3	399	56	146.8	421	64
		34.2	438	41	33.8	468	45	34.2	497	50	35.9	524	56
	41	116.0	333	41	126.5	363	46	136.2	390	53	145.8	418	61
		35.6	435	40	35.2	464	44	35.7	493	49	36.2	522	55
TWRS 055A	33	163.3	468	41	173.1	496	48	185.8	533	54	198.9	570	62
		39.5	581	22	41.3	615	25	41.8	652	27	42.3	691	31
	35	160.3	460	40	172.1	493	50	182.2	522	52	195.1	559	60
		41.0	577	22	41.6	613	25	43.5	647	27	44.1	686	30
	37	156.9	450	38	168.8	484	49	181.3	520	50	191.4	549	57
		42.7	572	21	43.2	608	25	43.8	645	26	45.8	680	29
	39	152.0	436	36	165.1	473	42	177.6	509	48	190.2	545	55
		45.6	566	21	45.0	602	23	45.6	640	26	46.2	678	29
	41	148.5	426	35	161.9	464	40	173.6	498	45	185.9	533	52
		47.5	562	20	46.9	599	24	47.5	634	25	48.2	671	28
TWRS 065A	33	212.0	608	35	224.5	644	40	240.5	689	45	258.2	740	52
		48.2	746	16	50.4	788	18	50.9	835	21	51.7	888	23
	35	208.0	596	33	223.4	640	42	235.9	676	43	253.6	727	50
		50.0	740	16	50.7	786	18	53.0	828	20	53.7	881	23
	37	203.7	584	32	218.9	628	40	234.7	673	41	248.8	713	48
		52.0	733	15	52.8	779	18	53.4	826	20	55.8	873	22
	39	197.3	566	30	214.4	615	35	229.6	658	40	246.9	708	45
		55.5	725	15	54.9	772	17	55.6	818	20	56.4	869	22
	41	192.7	552	29	207.3	594	33	224.7	644	38	241.7	693	43
		57.9	718	15	58.6	762	17	57.9	810	19	58.7	861	21

Notes) Above table is based on 5K temperature gap between chilled water inlet & outlet. (Fouling factor 0.000086m^2 °C/W(0.0001m^2·h·°C/kcal))
You need to contact us in case that temperature gap chilled water or cooling water is difference from shown above.

※Legend
LCWT : Leaving Chilled Water Temperature (°C)
CCpa : Cooling Capacity (kW)
FR : Flow Rate (L/min)
PD : Pressure Drop (L/min)
PC : Power Consumptuon(kW)
CW : Cooling Water
CDW : Condensing Water
Eva : Evaporator
Con : Condenser

Performance Data

R-134a Type(60Hz)

↘ TWRS 085A~TWRS 165A

Model	LCWT	Cooling Water Outet Temperature (°C)											
		5°C			7°C			9°C			11°C		
		CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD
		PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa
	°C	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.
		kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.
TWRS 085A	33	272.3	781	42	292.4	838	49	307.7	882	55	330.7	948	63
		63.7	963	28	64.6	1023	31	67.5	1076	34	68.4	1144	38
	35	267.0	765	40	287.0	823	51	303.3	869	53	324.3	930	61
		66.3	955	27	67.1	1015	30	70.1	1070	34	71.2	1134	38
	37	261.7	750	39	281.1	806	49	301.2	863	51	318.1	912	58
		68.9	948	27	69.9	1006	30	70.8	1066	33	74.0	1124	37
	39	253.4	726	37	275.3	789	42	295.1	846	48	316.0	906	55
		73.5	937	26	72.7	998	29	73.7	1057	32	74.6	1120	36
	41	247.5	710	35	265.9	762	40	288.3	826	46	308.8	885	53
		76.7	929	26	77.8	985	28	76.8	1047	32	77.8	1108	35
TWRS 100A	33	324.8	931	46	344.9	989	53	371.0	1064	61	398.4	1142	69
		71.1	1135	34	74.4	1202	38	75.4	1280	42	76.4	1361	47
	35	318.9	914	44	338.6	971	56	364.3	1044	58	391.3	1122	66
		73.8	1126	33	77.2	1192	37	78.3	1269	41	79.3	1349	46
	37	312.3	895	43	336.6	965	54	357.5	1025	56	383.5	1099	64
		76.9	1116	33	77.8	1188	36	81.4	1258	40	82.6	1336	45
	39	305.8	877	41	329.4	944	47	354.9	1017	53	375.9	1078	61
		79.9	1106	32	81.1	1177	36	82.2	1253	39	85.9	1324	44
	41	295.4	847	39	321.6	922	44	347.4	996	51	373.3	1070	58
		85.5	1092	31	84.4	1164	35	85.5	1241	38	86.7	1319	43
TWRS 115A	33	378.9	1086	33	402.3	1153	37	433.4	1242	43	465.5	1334	49
		82.6	1323	33	86.4	1401	37	87.6	1494	41	88.7	1589	45
	35	371.5	1065	31	400.1	1147	40	423.5	1214	41	456.7	1309	47
		85.9	1311	32	87.1	1397	36	91.1	1475	40	92.3	1574	44
	37	364.3	1044	30	392.3	1125	38	415.5	1191	39	446.4	1280	45
		89.2	1300	31	90.5	1384	35	94.6	1462	39	95.9	1555	43
	39	356.3	1021	29	384.3	1102	33	413.0	1184	37	437.6	1254	43
		93.0	1288	31	94.1	1371	34	95.4	1457	38	99.7	1540	42
	41	344.6	988	27	375.3	1076	31	403.8	1158	36	433.9	1244	41
		99.3	1273	30	98.1	1357	33	99.5	1443	37	100.8	1533	41
TWRS 130A	33	422.3	1211	33	454.5	1303	37	489.2	1402	43	515.7	1478	49
		94.1	1480	35	95.4	1576	39	96.7	1680	43	102.6	1772	48
	35	419.8	1203	31	446.2	1279	40	480.7	1378	41	516.2	1480	47
		94.8	1475	34	99.0	1563	38	100.4	1666	42	101.7	1771	47
	37	411.8	1180	30	443.3	1271	38	469.9	1347	39	504.7	1447	45
		98.5	1463	33	99.9	1557	37	104.2	1646	41	105.6	1750	46
	39	402.7	1154	29	434.4	1245	33	466.6	1338	37	494.3	1417	43
		102.6	1449	33	103.9	1543	36	105.3	1639	40	110.0	1732	45
	41	389.7	1117	27	424.2	1216	31	456.9	1310	36	491.0	1408	41
		109.5	1431	32	108.3	1527	35	109.5	1624	39	111.0	1726	44
TWRS 165A	33	544.0	1559	47	577.3	1655	54	621.6	1782	62	654.5	1876	71
		115.4	1890	41	120.7	2001	46	122.3	2133	51	130.0	2249	57
	35	533.8	1530	45	566.5	1624	57	608.2	1744	60	653.2	1873	68
		119.7	1873	40	125.2	1983	45	126.9	2107	50	128.6	2241	56
	37	522.8	1499	44	563.5	1615	55	596.7	1711	57	640.2	1835	65
		124.6	1856	40	126.1	1977	44	131.9	2089	49	133.9	2219	55
	39	511.8	1467	42	551.3	1580	48	592.4	1698	54	627.6	1799	62
		129.6	1839	39	131.4	1957	43	133.2	2080	48	139.2	2198	53
	41	494.3	1417	40	539.1	1545	45	579.9	1662	52	623.2	1787	59
		138.6	1814	38	136.8	1938	42	138.6	2060	47	140.5	2189	52

Notes) Above table is based on 5K temperature gap between chilled water inlet & outlet. (Fouling factor 0.000086m^2 °C/W(0.0001m^2·h·°C/kcal))
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CCpa : Cooling Capacity (kW)
FR : Flow Rate (L/min)
PD : Pressure Drop (L/min)
PC : Power Consumptuon(kW)
CW : Cooling Water
CDW : Condensing Water
Eva : Evaporator
Con : Condenser

Water Cooled Type (R-22)

R-134a Type(60Hz)

↘ TWRD 060A~TWRD 170A

Model	LCWT	Cooling Water Outet Temperature (°C)											
		5°C			7°C			9°C			11°C		
		CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD
		PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa
	°C	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.
		kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.
TWRD 060A	33	170.8	490	45	183.2	525	52	193.6	555	59	207.4	595	68
		42.6	612	25	43.2	649	28	45.0	684	31	45.6	725	34
	35	167.4	480	43	180.0	516	55	190.2	545	57	203.6	584	65
		44.2	607	25	44.8	644	27	46.8	679	30	47.4	720	33
	37	164.2	471	41	176.2	505	52	189.0	542	54	199.6	572	62
		46.0	603	24	46.6	639	26	47.2	677	29	49.4	714	33
	39	158.8	455	40	172.6	495	46	185.2	531	52	198.2	568	60
		49.2	596	23	48.4	634	26	49.2	672	29	49.8	711	32
	41	155.4	445	38	166.8	478	43	181.2	519	50	194.0	556	57
		51.2	592	23	51.8	627	25	51.2	666	28	51.8	705	31
TWRD 070A	33	225.2	646	37	241.8	693	43	255.8	733	49	273.8	785	56
		53.0	798	19	53.8	847	20	56.2	894	23	57.0	948	25
	35	221.2	634	36	237.0	679	45	250.8	719	47	268.6	770	54
		55.2	792	18	56.0	840	21	58.4	886	23	59.2	940	25
	37	216.6	621	34	232.6	667	43	249.4	715	45	263.4	755	52
		57.4	785	17	58.2	834	20	59.0	884	22	61.6	932	25
	39	209.4	600	33	227.6	652	38	244.4	701	43	261.8	750	49
		61.2	776	17	60.6	826	19	61.2	876	22	62.0	928	24
	41	205.0	588	31	220.2	631	36	238.8	685	41	255.8	733	47
		63.8	771	17	64.6	816	19	64.0	868	22	64.8	919	24
TWRD 080A	33	253.2	726	38	268.4	769	43	287.4	824	50	308.8	885	57
		59.4	896	26	62.0	947	29	63.0	1004	32	63.8	1068	35
	35	248.4	712	36	266.8	765	45	282.0	808	47	303.0	869	54
		61.8	889	25	62.6	944	28	65.4	996	31	66.2	1058	35
	37	243.2	697	35	261.8	750	44	280.6	804	45	297.2	852	52
		64.2	881	25	65.0	937	27	66.0	994	31	68.8	1049	34
	39	235.6	675	33	256.0	734	38	274.6	787	43	295.4	847	50
		68.6	872	24	67.8	928	27	68.6	984	30	69.4	1046	33
	41	230.2	660	31	247.8	710	36	268.6	770	41	288.8	828	47
		71.4	865	24	72.4	918	26	71.4	975	29	72.4	1035	33
TWRD 110A	33	339.8	974	49	360.6	1034	57	387.8	1112	65	416.0	1193	74
		79.4	1202	34	83.0	1272	38	84.2	1353	42	85.4	1437	47
	35	333.0	955	47	359.0	1029	59	380.4	1090	62	408.6	1171	71
		82.6	1191	34	83.6	1269	37	87.6	1342	42	88.6	1425	46
	37	326.4	936	45	351.6	1008	57	373.2	1070	59	400.8	1149	68
		85.8	1182	33	87.0	1257	37	91.0	1331	41	92.2	1413	45
	39	315.8	905	43	344.4	987	50	370.8	1063	57	392.4	1125	65
		91.6	1168	32	90.4	1246	36	91.8	1326	40	96.0	1400	44
	41	308.8	885	41	337.0	966	47	362.4	1039	54	389.6	1117	62
		95.4	1159	32	94.4	1237	35	95.6	1313	39	97.0	1395	43
TWRD 130A	33	445.2	1276	34	472.8	1355	39	508.6	1458	44	535.6	1535	51
		95.4	1550	37	99.8	1641	41	101.0	1748	46	107.4	1843	51
	35	436.6	1252	33	464.0	1330	41	499.2	1431	43	536.2	1537	49
		99.2	1536	36	103.6	1627	40	105.0	1732	45	106.4	1842	50
	37	428.2	1228	31	461.0	1322	40	489.8	1404	41	526.2	1508	47
		103.0	1523	36	104.6	1621	39	109.2	1717	44	110.6	1825	49
	39	418.8	1201	30	451.8	1295	34	486.4	1394	39	515.4	1477	45
		107.4	1508	35	108.8	1607	39	110.2	1710	43	115.2	1808	48
	41	405.2	1162	28	442.2	1268	32	476.4	1366	37	511.8	1467	43
		114.6	1490	34	113.4	1593	38	114.6	1694	42	116.2	1800	47
TWRD 170A	33	563.4	1615	47	597.8	1714	54	642.8	1843	62	690.6	1980	70
		126.2	1977	42	132.0	2092	47	133.6	2226	52	135.4	2368	58
	35	552.4	1584	45	594.6	1705	57	630.8	1808	59	677.6	1942	68
		131.2	1960	41	133.0	2086	46	139.0	2207	51	140.8	2346	57
	37	541.8	1553	43	583.0	1671	54	619.0	1774	57	665.0	1906	65
		136.2	1944	41	138.2	2067	45	144.4	2188	50	146.4	2326	56
	39	524.0	1502	41	570.6	1636	47	615.2	1764	54	651.0	1866	62
		145.6	1920	40	144.0	2049	44	145.6	2181	49	152.6	2304	55
	41	512.8	1470	39	559.0	1602	45	601.4	1724	52	646.4	1853	59
		151.4	1904	39	149.8	2032	43	151.8	2159	48	154.0	2294	53

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CDW : Condensing Water
Eva : Evaporator
Con : Condenser

Performance Data

R-134a Type(60Hz)

↘ TWRD 200A~330A, TWRT 105A~120A

Model	LCWT	Cooling Water Outet Temperature (°C)											
		5°C			7°C			9°C			11°C		
		CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD
		PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa
	°C	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.
		kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.
TWRD 200A	33	649.6	1862	43	689.8	1977	49	742.0	2127	56	796.8	2284	64
		142.2	2270	31	148.8	2404	35	150.8	2559	39	152.8	2722	43
	35	637.8	1828	41	677.2	1941	52	728.6	2089	54	782.6	2243	62
		147.6	2251	31	154.4	2384	34	156.6	2538	38	158.6	2698	42
	37	624.6	1791	40	673.2	1930	50	715.0	2050	52	767.0	2199	59
		153.8	2231	30	155.6	2376	33	162.8	2516	37	165.2	2672	41
	39	611.6	1753	38	658.8	1889	43	709.8	2035	50	751.8	2155	57
		159.8	2211	30	162.2	2354	33	164.4	2506	36	171.8	2648	40
	41	590.8	1694	36	643.2	1844	41	694.8	1992	47	746.6	2140	54
		171.0	2184	29	168.8	2328	32	171.0	2482	36	173.4	2637	40
TWRD 230A	33	757.8	2172	29	803.0	2302	33	866.8	2485	37	931.0	2669	42
		165.2	2646	33	172.8	2797	37	175.2	2987	41	177.4	3177	45
	35	743.0	2130	27	800.2	2294	34	847.0	2428	36	913.4	2618	41
		171.8	2622	32	174.2	2793	36	182.2	2950	40	184.6	3148	44
	37	728.6	2089	26	784.4	2249	33	831.0	2382	34	892.8	2559	39
		178.4	2600	31	181.0	2767	35	189.2	2925	39	191.8	3109	43
	39	712.6	2043	25	768.6	2203	29	826.0	2368	33	875.2	2509	37
		186.0	2576	31	188.2	2743	24	190.8	2915	38	199.4	3081	42
	41	689.2	1976	24	750.6	2152	27	807.6	2315	61	867.8	2488	36
		198.6	2545	30	196.2	2714	33	199.0	2886	40	201.6	3066	41
TWRD 260A	33	856.2	2454	55	922.2	2644	64	990.2	2839	73	1042.4	2988	82
		188.8	2996	35	191.2	3192	40	193.6	3394	44	205.8	3578	49
	35	852.2	2443	53	904.2	2592	67	971.6	2785	70	1044.6	2995	79
		190.0	2988	35	198.6	3161	39	201.4	3363	43	203.6	3578	48
	37	834.4	2392	51	899.2	2578	64	953.6	2734	67	1024.2	2936	75
		197.6	2958	34	200.0	3151	38	209.2	3333	42	211.8	3543	47
	39	817.2	2343	49	880.0	2523	56	948.2	2718	64	1004.4	2879	73
		205.6	2932	33	208.4	3120	37	210.8	3322	41	220.4	3511	46
	41	789.6	2264	46	862.4	2472	53	927.4	2659	61	982.4	2816	70
		219.8	2894	33	216.8	3094	36	219.8	3289	40	229.8	3475	45
TWRD 330A	33	1088.0	3119	42	1154.6	3310	48	1243.2	3564	54	1309.0	3752	62
		230.8	3781	41	241.4	4002	46	244.6	4265	51	260.0	4498	57
	35	1067.6	3060	40	1133.0	3248	51	1216.4	3487	52	1306.4	3745	60
		239.4	3747	40	250.4	3966	45	253.8	4215	50	257.2	4482	56
	37	1045.6	2997	38	1127.0	3231	49	1193.4	3421	50	1280.4	3670	57
		249.2	3712	40	252.2	3954	44	263.8	4177	49	267.8	4438	55
	39	1023.6	2934	36	1102.6	3161	42	1184.8	3396	48	1255.2	3598	55
		259.2	3677	39	262.8	3914	43	266.4	4160	48	278.4	4396	53
	41	988.6	2834	35	1078.2	3091	40	1159.8	3325	46	1246.4	3573	52
		277.2	3629	38	273.6	3875	42	277.2	4119	47	281.0	4379	52
TWRT 105A	33	352.8	1011	47	374.4	1073	54	403.2	1156	62	432.9	1241	71
		79.2	1238	39	82.8	1311	44	84.0	1397	48	84.9	1484	54
	35	345.9	992	45	372.9	1069	57	396.0	1135	60	425.4	1219	68
		82.2	1227	38	83.1	1307	43	87.0	1385	47	88.2	1472	53
	37	339.3	973	44	365.4	1047	55	388.2	1113	57	417.0	1195	65
		85.5	1218	38	86.7	1296	42	90.6	1373	47	91.8	1459	52
	39	328.2	941	42	357.9	1026	48	385.8	1106	55	408.6	1171	62
		91.2	1202	37	90.0	1284	41	91.5	1368	46	95.4	1445	51
	41	321.3	921	40	350.4	1004	45	377.1	1081	47	405.3	1162	60
		95.1	1194	36	93.9	1274	40	95.4	1355	45	96.6	1439	50
TWRT 120A	33	387.9	1112	43	412.5	1183	49	444.0	1273	56	467.7	1341	64
		88.5	1366	36	92.4	1447	41	93.6	1541	45	99.6	1626	50
	35	381.0	1092	41	404.7	1160	52	435.6	1249	54	468.0	1342	62
		91.8	1355	36	96.0	1435	40	97.5	1528	44	98.7	1625	49
	37	373.2	1070	40	402.3	1153	50	427.5	1226	52	459.3	1317	59
		95.7	1344	35	96.9	1431	39	101.1	1515	43	102.6	1611	48
	39	365.7	1048	38	393.9	1129	43	424.5	1217	50	450.6	1292	57
		99.3	1333	34	100.8	1418	38	102.3	1510	42	106.5	1597	47
	41	353.4	1013	36	384.3	1102	41	415.8	1192	47	446.7	1281	54
		106.2	1318	34	105.0	1403	37	106.5	1497	41	107.7	1589	46

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Eva : Evaporator
Con : Condenser

Performance Data

R-134a Type(60Hz)

↘ TWRF 140A~TWRF 460A

Model	LCWT	Cooling Water Outet Temperature (°C)											
		5°C			7°C			9°C			11°C		
		CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD
		PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa
	°C	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.
		kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.
TWRF 140A	33	450.4	1291	37	483.6	1386	43	511.6	1467	49	547.6	1570	56
		106.0	1595	19	107.6	1695	20	112.4	1789	23	114.0	1897	25
	35	441.6	1266	36	474.0	1359	45	501.6	1438	47	537.2	1540	54
		110.4	1582	18	112.0	1680	21	116.8	1773	23	118.4	1879	25
	37	433.2	1242	34	465.2	1334	43	498.8	1430	45	526.8	1510	52
		114.8	1571	17	116.4	1667	20	118.0	1768	22	123.2	1863	25
	39	418.8	1201	33	455.2	1305	38	488.8	1401	43	523.6	1501	49
		122.4	1551	17	121.2	1652	19	122.4	1752	22	124.0	1856	24
	41	410.4	1176	31	440.4	1262	36	477.6	1369	41	511.6	1467	47
		127.6	1542	18	129.2	1633	19	128.0	1736	22	129.6	1838	24
TWRF 160A	33	506.4	1452	38	536.8	1539	43	574.8	1648	50	617.6	1770	57
		118.8	1792	26	124.0	1894	29	126.0	2009	32	127.6	2136	35
	35	496.8	1424	36	533.6	1530	45	564.0	1617	47	606.0	1737	54
		123.6	1778	25	125.2	1889	28	130.8	1992	31	132.4	2117	35
	37	486.4	1394	35	523.6	1501	44	561.2	1609	45	594.4	1704	52
		128.4	1762	25	130.0	1874	27	132.0	1987	31	137.6	2098	34
	39	471.2	1351	32	512.0	1468	38	549.2	1574	43	590.8	1694	50
		137.2	1744	24	135.6	1856	27	137.2	1968	30	138.8	2092	33
	41	460.4	1320	31	495.6	1421	36	537.2	1540	41	577.6	1656	47
		142.8	1729	17	144.8	1836	26	142.8	1949	29	144.8	2071	33
TWRF 400A	33	1266.8	3631	35	1344.4	3854	40	1444.8	4142	46	1552.4	4450	53
		283.2	4443	48	296.4	4704	54	300.4	5003	60	316.4	5357	67
	35	1243.2	3564	34	1338.4	3837	43	1418.8	4067	44	1522.8	4365	51
		294.0	4407	47	298.0	4691	53	311.6	4960	59	316.4	5272	66
	37	1217.6	3490	32	1311.2	3759	41	1410.0	4042	42	1494.4	4284	48
		306.0	4368	47	310.4	4649	52	314.8	4944	58	328.8	5227	64
	39	1179.6	3382	31	1284.4	3682	35	1382.0	3962	40	1464.4	4198	46
		326.4	4317	46	322.8	4607	51	327.2	4900	56	342.0	5178	63
	41	1152.4	3304	29	1255.2	3598	34	1350.8	3872	39	1452.0	4162	44
		340.4	4279	45	336.4	4563	50	341.2	4850	55	346.0	5154	61
TWRF 460A	33	1443.6	4138	46	1553.6	4454	53	1648.8	4727	69	1763.2	5055	69
		330.0	5084	55	334.8	5413	61	350.0	5730	63	355.2	6073	75
	35	1417.2	4063	44	1524.8	4371	56	1619.2	4642	58	1731.6	4964	66
		342.4	5044	54	347.6	5368	60	363.2	5683	67	368.8	6021	74
	37	1388.0	3979	42	1493.6	4282	54	1608.8	4612	56	1698.4	4869	64
		356.8	5002	53	361.6	5318	59	366.8	5663	65	383.2	5967	75
	39	1344.4	3854	41	1464.0	4197	47	1576.4	4519	53	1685.6	4832	61
		380.4	4944	52	376.4	5276	58	381.6	5613	64	387.2	5942	71
	41	1313.6	3766	39	1416.8	4061	44	1540.4	4416	51	1650.0	4730	58
		396.8	4903	51	401.6	5213	56	398.0	5557	63	403.2	5886	70

Notes) Above table is based on 5K temperature gap between chilled water inlet & outlet. (Fouling factor 0.000086m² °C/W(0.0001m²·h·°C/kcal))
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※Legend
LCWT : Leaving Chilled Water Temperature (°C)
CCpa : Cooling Capacity (kW)
FR : Flow Rate (L/min)
PD : Pressure Drop (L/min)
PC : Power Consumptuon(kW)
CW : Cooling Water
CDW : Condensing Water
Eva : Evaporator
Con : Condenser

Performance Data

R-134a Type(60Hz)

↘ TWLS 020A~TWLS 065A

Model	LCWT	Brine In/ Outet Temperature (°C)											
		-12/-15°C			-6/-10°C			-3/-7°C			0/-5°C		
		CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD
		PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa
	°C	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.
		kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.
TWLS 020A	33	24.3	128	36	31.4	124	25	35.5	140	31	39.6	125	22
		13.8	109	9	14.7	132	12	15.3	145	14	15.0	157	15
	35	23.4	123	34	30.5	120	24	34.7	137	29	38.0	120	21
		14.3	108	9	15.2	131	12	15.8	145	14	16.2	155	15
	37	22.6	119	33	29.8	118	23	33.8	133	28	37.1	117	20
		14.9	107	9	15.7	131	11	16.5	144	13	16.9	155	15
	39	21.8	115	31	29.0	114	22	33.0	130	27	36.3	115	19
		15.5	107	9	16.4	130	11	17.2	144	13	17.6	155	15
	41	20.9	110	29	28.1	111	21	32.0	126	25	35.4	112	18
		16.1	106	9	17.1	130	11	17.9	143	13	18.3	154	15
TWLS 030A	33	34.3	180	54	44.5	175	37	50.4	199	47	56.2	177	32
		18.1	150	10	19.1	183	13	20.1	202	15	19.8	218	17
	35	33.4	176	52	43.5	172	36	49.4	195	45	55.0	173	30
		18.7	150	10	19.9	182	13	20.9	201	15	20.6	217	17
	37	32.2	169	49	42.5	167	34	48.2	190	43	52.9	167	29
		19.5	148	10	20.7	181	13	21.7	200	15	22.2	215	17
	39	31.1	164	47	41.3	163	32	47.0	185	41	51.7	163	27
		20.4	148	10	21.6	180	13	22.6	200	15	23.1	214	17
	41	29.9	157	44	39.9	157	31	45.8	180	38	50.3	159	26
		21.2	147	9	22.6	179	12	23.5	199	15	24.0	213	16
TWLS 035A	33	45.1	237	43	57.0	225	30	64.4	254	37	72.1	227	25
		22.5	194	16	23.8	232	21	24.9	256	25	24.6	277	27
	35	43.6	229	41	55.8	220	28	63.0	248	35	69.4	219	25
		23.4	192	16	24.8	231	21	25.9	255	24	26.6	275	26
	37	41.9	220	39	54.3	214	27	61.5	243	34	68.2	215	24
		24.3	190	16	25.8	230	21	26.9	254	24	27.6	274	26
	39	40.2	211	37	52.9	208	26	60.0	236	32	66.5	210	23
		25.3	188	15	26.8	228	20	28.1	252	24	28.7	273	26
	41	38.3	202	36	51.3	202	25	58.7	231	31	64.8	204	22
		26.3	185	15	28.0	227	20	29.3	252	24	30.0	272	25
TWLS 040A	33	49.4	260	50	63.9	252	34	71.9	284	43	81.0	255	29
		25.2	214	14	26.7	260	19	27.9	286	22	27.6	311	25
	35	47.9	252	48	62.4	246	33	70.4	277	41	79.3	250	28
		26.1	212	14	27.8	259	19	29.1	285	22	28.7	310	24
	37	45.9	241	46	60.8	240	31	69.1	272	39	76.2	240	27
		27.2	210	14	28.9	257	18	30.2	285	21	31.0	307	24
	39	44.3	233	44	59.3	234	30	67.5	266	37	74.4	235	25
		28.3	208	14	30.1	256	18	31.4	283	21	32.1	306	24
	41	42.6	224	41	57.6	227	28	65.7	259	36	72.5	229	25
		29.5	207	14	31.3	255	18	32.8	282	21	33.5	304	23
TWLS 055A	33	64.3	338	43	83.2	328	29	93.8	370	37	104.6	330	25
		33.7	281	7	35.8	341	10	37.4	376	11	36.9	406	13
	35	62.3	327	41	81.3	320	28	91.8	362	35	100.5	317	25
		35.0	279	7	37.1	339	9	38.9	374	11	39.8	402	13
	37	60.0	315	39	79.2	312	27	89.7	354	33	98.9	312	23
		36.4	276	7	38.7	338	9	40.3	373	11	41.3	402	12
	39	57.9	304	37	77.1	304	25	87.4	344	32	96.4	304	22
		38.0	275	7	40.3	337	9	42.1	371	11	43.1	400	12
	41	55.6	292	35	74.6	294	25	85.1	335	30	93.9	296	21
		39.6	273	7	41.9	334	9	43.8	369	11	44.8	398	12
TWLS 065A	33	83.6	439	35	107.6	424	25	121.9	480	30	136.0	429	21
		41.1	358	5	43.5	433	7	45.6	480	8	44.9	519	9
	35	80.9	425	34	105.1	414	24	119.3	470	29	130.7	412	21
		42.7	354	5	45.3	431	7	47.4	478	8	48.5	514	9
	37	78.5	413	32	102.4	404	23	116.5	459	28	127.9	403	20
		44.4	352	5	47.1	429	7	49.2	475	8	50.3	511	9
	39	75.4	396	31	99.7	393	22	113.6	448	26	124.8	393	19
		46.2	349	5	49.1	427	7	51.3	473	8	52.5	508	9
	41	72.6	381	29	96.9	382	21	110.5	436	25	121.5	383	18
		48.2	346	5	51.0	424	7	53.5	470	8	54.7	505	9

Notes) Above table is based on 5K, 4K, 3K temperature gap between chilled water inlet & outlet. (Fouling factor 0.000086m^2 °C/W(0.0001m^2·h·°C/kcal))
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Eva : Evaporator
Con : Condenser

Performance Data

R-134a Type(60Hz)

↘ TWLS 085A~TWLS 165A

Model	LCWT	Brine In/ Outet Temperature (°C)											
		-12/-15°C			-6/-10°C			-3/-7°C			0/-5°C		
		CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD
		PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa
	°C	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.
		kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.
TWLS 085A	33	107.1	563	43	138.5	546	30	156.2	616	37	175.1	552	25
		54.2	462	9	57.5	562	12	60.2	620	14	59.4	672	16
	35	103.6	544	41	135.3	533	28	152.8	602	36	168.3	531	25
		56.3	458	9	59.8	559	12	62.6	617	14	64.0	666	16
	37	99.9	525	39	131.9	520	27	149.1	588	34	164.4	518	24
		58.6	455	9	62.2	556	12	65.1	614	14	66.6	662	15
	39	96.7	508	37	128.3	506	26	145.6	574	32	160.6	506	23
		60.9	452	9	64.8	554	11	67.7	612	13	69.3	659	15
	41	92.9	488	35	124.8	492	25	142.3	561	31	156.4	493	22
		63.5	448	8	67.5	551	11	70.7	611	13	72.2	655	15
TWLS 100A	33	125.6	660	49	163.6	645	33	188.3	742	42	207.0	653	28
		60.5	534	11	64.2	653	15	64.8	726	17	66.3	784	19
	35	122.3	643	47	159.9	630	32	180.1	710	40	202.7	639	27
		62.8	531	11	66.8	650	14	69.8	716	17	69.0	779	19
	37	119.0	625	44	156.0	615	30	176.0	694	38	194.7	614	26
		65.4	529	11	69.5	646	14	72.7	713	17	74.3	771	19
	39	114.6	602	42	151.9	599	29	171.9	678	36	190.3	600	25
		68.1	524	11	72.4	643	14	75.5	709	16	77.3	767	18
	41	110.6	581	40	147.8	583	27	167.3	659	34	182.8	576	24
		70.9	520	10	75.3	640	14	78.7	705	16	80.4	755	18
TWLS 115A	33	146.6	771	34	190.9	752	24	214.8	847	29	241.6	762	21
		70.4	622	11	74.7	762	14	78.1	840	17	77.2	914	19
	35	142.8	751	33	186.6	736	23	210.2	829	28	236.6	746	20
		73.1	619	10	77.7	758	14	81.3	836	16	80.2	908	19
	37	138.8	729	31	181.2	714	22	205.7	811	27	227.5	718	19
		76.1	616	10	80.8	751	14	84.4	831	16	86.4	900	18
	39	134.0	704	30	176.7	697	21	200.6	791	25	222.2	701	18
		79.1	611	10	84.0	747	14	87.9	827	16	90.0	895	18
	41	129.1	678	28	171.7	677	20	195.3	770	25	216.4	682	17
		82.5	606	10	87.6	743	13	91.7	823	16	93.8	889	18
TWLS 130A	33	166.3	874	34	215.4	849	24	248.0	977	29	272.6	860	21
		78.1	701	11	82.7	855	15	83.5	950	17	85.4	1026	20
	35	161.1	846	32	210.6	830	23	238.4	940	28	267.0	842	20
		81.1	694	11	85.9	850	15	89.9	941	17	88.7	1020	19
	37	156.9	825	31	205.6	810	22	233.4	920	27	256.9	810	19
		84.2	691	11	89.4	846	14	93.4	937	17	95.6	1010	19
	39	152.1	800	29	200.3	790	21	227.6	897	25	250.8	791	18
		87.6	687	11	93.1	841	14	97.3	931	17	99.5	1004	19
	41	145.9	767	28	194.7	767	20	221.7	874	25	244.4	771	17
		91.4	680	11	97.1	836	14	101.4	926	16	103.7	998	18
TWLS 165A	33	211.0	1109	50	274.4	1082	34	314.3	1239	42	347.2	1095	29
		98.2	887	13	104.2	1085	18	105.2	1203	21	107.6	1304	23
	35	205.6	1080	47	268.3	1057	32	302.2	1191	41	340.0	1072	27
		102.1	882	13	108.3	1079	17	113.2	1191	20	111.9	1295	23
	37	199.8	1050	45	260.5	1027	31	295.7	1165	39	326.6	1030	26
		106.1	877	13	112.7	1070	17	117.6	1185	20	120.6	1282	23
	39	194.1	1020	43	254.1	1002	29	288.4	1137	37	319.3	1007	25
		110.3	873	13	117.1	1064	17	122.5	1178	20	125.3	1275	22
	41	186.2	979	41	247.0	974	28	280.8	1107	35	311.2	981	25
		115.0	864	12	122.1	1058	17	127.7	1171	19	130.7	1267	22

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FR : Flow Rate (L/min)
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Con : Condenser

Performance Data

R-134a Type(60Hz)

↘ TWLD 060A~TWLD 170A

Model	LCWT	Brine In/ Outet Temperature (°C)											
		-12/-15°C			-6/-10°C			-3/-7°C			0/-5°C		
		CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD
		PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa
	°C	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.
		kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.
TWLD 060A	33	67.7	356	46	86.7	342	32	97.8	385	40	109.6	346	27
		36.5	299	8	38.7	359	11	40.4	396	13	39.9	429	14
	35	65.0	341	44	84.6	333	30	95.6	377	38	105.3	332	26
		37.9	295	8	40.2	358	11	42.0	395	12	43.0	425	14
	37	62.5	328	42	82.4	325	29	93.3	368	36	103.0	325	25
		39.4	292	8	41.8	356	10	43.7	393	12	44.7	423	14
	39	60.4	317	40	80.1	316	27	91.0	359	34	100.4	317	24
		40.9	290	8	43.5	354	10	45.5	391	12	46.5	421	14
	41	58.0	305	38	77.4	305	21	88.5	349	32	97.9	309	23
		42.7	289	8	45.3	352	10	47.4	390	12	48.7	420	13
TWLD 070A	33	89.2	469	38	114.3	451	26	129.1	509	33	144.0	454	23
		45.6	386	9	48.2	466	8	50.5	515	9	49.8	556	11
	35	86.3	454	36	111.6	440	25	126.2	497	31	138.3	436	22
		47.3	383	6	50.2	464	8	52.5	512	9	53.5	550	10
	37	82.8	435	35	108.9	429	25	123.1	485	30	135.2	426	21
		49.2	379	6	52.1	461	8	54.6	509	9	55.9	548	10
	39	79.4	417	33	105.8	417	23	120.1	474	28	132.5	418	20
		51.1	374	6	54.4	459	8	56.8	507	9	58.2	547	10
	41	76.9	404	31	102.8	405	22	116.8	461	27	129.2	407	19
		53.2	373	6	56.6	457	8	59.3	505	9	60.6	544	10
TWLD 080A	33	99.0	520	39	128.3	506	26	144.8	571	33	162.0	511	23
		50.9	430	8	54.2	523	11	56.6	577	13	56.1	625	15
	35	96.3	506	37	125.0	493	25	141.7	559	32	155.9	492	22
		53.0	428	8	56.2	519	11	58.9	575	13	60.2	620	14
	37	93.0	489	35	121.9	480	25	138.4	546	30	152.4	481	21
		55.2	425	8	58.5	517	11	61.2	572	13	62.7	617	14
	39	89.8	472	33	118.6	467	24	134.9	532	29	148.7	469	20
		57.5	422	8	61.0	515	11	64.0	570	12	65.3	613	14
	41	86.3	454	31	115.1	454	23	131.4	518	27	145.0	457	19
		60.0	419	8	63.6	512	10	66.5	567	12	68.0	611	14
TWLD 110A	33	130.5	686	52	170.1	670	35	192.5	759	44	215.1	678	30
		67.8	569	11	72.1	694	15	75.4	768	18	74.4	830	20
	35	127.2	669	49	166.2	655	34	188.2	742	42	210.6	664	28
		70.3	566	11	74.8	691	15	78.3	764	17	77.6	826	19
	37	122.6	644	47	162.1	639	32	183.9	725	40	202.4	638	27
		73.2	561	11	78.0	688	15	81.6	761	17	83.4	819	19
	39	118.4	622	45	157.7	621	31	179.2	706	38	197.5	623	26
		76.3	558	11	81.3	685	14	85.0	757	17	87.0	816	19
	41	114.0	599	42	153.4	605	29	174.6	688	36	192.5	607	25
		79.6	555	11	84.6	682	14	88.5	754	17	90.7	812	19
TWLD 130A	33	171.8	903	35	223.8	882	25	256.2	1010	30	283.1	893	21
		82.1	728	12	87.1	891	16	87.9	986	19	89.9	1069	21
	35	167.4	880	34	218.7	862	24	246.7	972	29	277.3	874	20
		85.1	724	12	90.6	887	16	94.5	978	18	93.4	1063	21
	37	162.8	856	32	212.3	837	23	241.1	950	27	266.7	841	19
		88.6	721	12	94.1	878	15	98.4	973	18	100.6	1053	20
	39	156.8	824	30	207.0	816	22	235.2	927	26	260.3	821	19
		92.4	715	11	97.8	874	15	102.4	968	18	104.7	1046	20
	41	151.5	796	29	201.2	793	21	228.8	902	25	253.6	800	18
		96.1	710	11	102.1	869	15	106.7	962	18	109.2	1040	20
TWLD 170A	33	216.4	1137	49	282.5	1113	33	318.0	1254	42	358.0	1129	28
		108.0	930	13	114.7	1139	18	119.9	1256	21	118.4	1366	24
	35	210.7	1107	46	276.0	1088	32	311.2	1227	40	350.5	1105	27
		112.2	926	13	119.2	1133	18	124.6	1249	21	123.1	1358	23
	37	205.1	1078	44	269.2	1061	30	304.4	1200	38	336.5	1061	26
		116.5	922	13	124.0	1127	17	129.5	1244	21	132.9	1345	23
	39	197.0	1035	42	262.4	1034	29	296.8	1170	36	328.9	1037	25
		121.3	912	13	128.9	1122	17	134.9	1238	20	138.1	1339	23
	41	189.7	997	40	254.9	1005	27	288.9	1139	34	320.3	1010	24
		126.5	906	13	134.5	1116	17	140.6	1231	20	144.0	1331	22

Notes) Above table is based on 5K, 4K, 3K temperature gap between chilled water inlet & outlet. (Fouling factor 0.000086m^2 °C/W(0.0001m^2·h·°C/kcal))
You need to contact us in case that temperature gap chilled water or brine is difference from shown above.

※Legend
LCWT : Leaving Chilled Water Temperature (°C)
CCpa : Cooling Capacity (kW)
FR : Flow Rate (L/min)
PD : Pressure Drop (L/min)
PC : Power Consumptuon(kW)
CW : Cooling Water
CDW : Condensing Water
Eva : Evaporator
Con : Condenser

Performance Data

R-134a Type(60Hz)

↘ TWLD 200A~330A, TWLT 105A~120A

Model	LCWT	Brine In/ Outet Temperature (°C)											
		-12/-15°C			-6/-10°C			-3/-7°C			0/-5°C		
		CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD
		PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa
	°C	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.
		kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.
TWLD 200A	33	250.1	1314	45	325.4	1283	31	368.0	1451	38	412.1	1299	26
		121.7	1066	10	129.5	1304	14	135.5	1443	16	133.7	1564	18
	35	243.5	1280	43	318.4	1255	29	360.6	1421	37	403.3	1272	25
		126.5	1061	10	134.3	1298	13	140.6	1437	16	138.9	1554	18
	37	236.6	1243	41	310.7	1224	28	352.3	1388	35	387.9	1223	16
		131.7	1056	10	139.8	1291	13	146.4	1429	16	149.7	1541	18
	39	228.1	1199	39	302.3	1192	27	343.3	1353	33	378.5	1194	23
		136.8	1046	10	145.6	1284	13	152.4	1421	15	155.9	1532	17
	41	219.7	1155	37	293.5	1157	25	334.6	1319	32	368.5	1162	22
		142.6	1039	10	151.8	1277	13	158.6	1414	15	162.6	1522	17
TWLD 230A	33	292.0	1534	30	380.2	1499	21	430.0	1695	25	480.9	1516	18
		141.7	1243	11	150.3	1521	14	157.3	1684	17	155.5	1824	19
	35	284.3	1494	28	371.5	1464	20	420.7	1658	25	471.3	1486	17
		147.2	1237	10	156.3	1513	14	163.5	1675	16	161.4	1814	18
	37	276.6	1454	27	362.4	1428	19	411.0	1620	24	452.5	1427	16
		152.8	1231	10	162.7	1505	14	170.3	1666	16	174.1	1796	18
	39	266.2	1399	26	352.8	1391	18	401.2	1582	23	441.6	1393	16
		159.1	1219	10	169.5	1497	14	176.9	1657	16	181.3	1786	18
	41	256.4	1347	25	343.3	1353	17	390.5	1539	22	430.9	1359	15
		166.1	1211	10	176.3	1490	13	184.5	1648	16	188.8	1776	18
TWLD 260A	33	334.8	1760	58	434.9	1714	40	501.0	1975	49	552.4	1742	33
		157.4	1411	11	167.0	1725	15	168.4	1919	18	172.5	2078	20
	35	326.7	1717	55	425.9	1679	38	481.7	1899	47	541.6	1708	32
		163.2	1404	11	173.2	1718	15	181.4	1901	17	179.0	2066	20
	37	317.7	1670	52	415.6	1638	36	470.6	1855	45	520.4	1641	31
		169.9	1398	11	180.4	1709	15	188.6	1890	17	193.1	2045	19
	39	308.1	1619	50	404.7	1595	34	459.2	1810	43	508.0	1602	29
		176.8	1390	11	187.8	1699	14	196.5	1880	17	201.1	2033	19
	41	295.4	1553	47	393.5	1551	32	447.7	1765	41	495.9	1564	28
		184.5	1376	11	195.8	1689	14	204.5	1870	17	209.3	2022	19
TWLD 330A	33	420.0	2207	43	546.7	2155	30	629.3	2480	37	690.9	2179	25
		197.4	1770	13	209.6	2168	18	211.7	2411	21	216.7	2602	23
	35	409.8	2154	41	534.2	2106	28	604.8	2384	35	677.5	2136	25
		204.9	1762	13	217.9	2156	17	228.0	2387	20	224.9	2587	23
	37	398.2	2093	39	521.2	2054	27	588.1	2318	34	650.5	2051	24
		213.1	1753	13	226.9	2144	17	237.2	2366	20	242.7	2560	23
	39	385.9	2028	37	508.4	2004	26	574.3	2264	32	634.9	2002	23
		222.0	1743	13	235.8	2133	17	246.5	2353	20	252.8	2545	22
	41	370.0	1944	35	493.8	1946	25	558.9	2203	30	619.4	1953	21
		231.4	1724	12	245.9	2120	17	257.0	2339	19	263.0	2530	22
TWLT 105A	33	134.3	706	49	175.5	692	34	198.6	783	42	222.2	701	28
		68.0	580	13	72.3	711	17	75.5	786	20	74.7	851	22
	35	130.6	686	47	171.5	676	32	194.5	767	40	217.8	687	27
		70.6	577	13	75.2	707	17	78.7	783	20	77.7	847	22
	37	126.6	665	45	167.1	659	31	189.8	748	38	209.3	660	26
		73.5	574	12	78.1	703	17	81.9	779	19	83.8	840	22
	39	122.0	641	43	162.7	641	29	184.9	729	36	204.0	643	25
		76.4	569	12	81.4	700	16	85.4	775	19	87.3	835	21
	41	117.3	617	40	158.3	624	28	180.2	710	35	199.6	629	24
		79.9	565	12	84.9	697	16	88.6	771	19	91.2	833	21
TWLT 120A	33	149.1	783	45	193.0	761	30	218.7	862	38	244.7	772	26
		76.1	645	12	81.1	786	16	84.9	870	18	83.8	942	21
	35	145.0	762	43	188.7	744	29	213.7	843	36	239.8	756	25
		79.3	643	12	84.3	782	16	88.4	866	18	87.1	937	21
	37	140.1	736	41	184.0	725	28	209.1	824	35	230.1	726	24
		82.5	638	12	87.8	779	15	91.6	862	18	93.8	928	20
	39	135.2	711	39	179.3	707	26	203.8	803	33	224.8	709	23
		85.9	634	11	91.3	776	15	95.4	858	18	97.6	924	20
	41	130.0	683	37	174.1	686	25	198.3	782	31	220.1	694	22
		89.7	630	11	95.1	772	15	99.4	853	17	102.0	923	20

Notes) Above table is based on 5K, 4K, 3K temperature gap between chilled water inlet & outlet. (Fouling factor 0.000086m^2 °C/W(0.0001m^2·h·°C/kcal))
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※Legend
LCWT : Leaving Chilled Water Temperature (°C)
CCpa : Cooling Capacity (kW)
FR : Flow Rate (L/min)
PD : Pressure Drop (L/min)
PC : Power Consumptuon(kW)
CW : Cooling Water
CDW : Condensing Water
Eva : Evaporator
Con : Condenser

Performance Data

R-134a Type(60Hz)

↘ TWLF 140A~TWLF 460A

Model	LCWT	Brine In/ Outet Temperature (°C)											
		-12/-15°C			-6/-10°C			-3/-7°C			0/-5°C		
		CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD
		PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa
	°C	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.
		kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.
TWLF 140A	33	176.4	927	38	226.3	892	26	255.4	1007	32	286.1	902	23
		92.3	770	6	98.0	930	8	102.3	1025	9	101.2	1110	11
	35	170.7	897	36	220.8	870	25	249.6	984	31	274.7	866	22
		95.7	764	6	101.9	925	8	106.5	1021	9	109.4	1101	10
	37	163.0	857	34	215.4	849	24	243.4	959	29	268.5	847	21
		99.6	753	6	105.8	921	8	110.8	1015	9	113.7	1096	10
	39	157.6	828	32	209.2	824	23	238.3	939	28	261.4	824	20
		103.8	749	6	110.4	916	8	115.5	1014	9	118.4	1089	10
	41	151.1	794	30	201.4	794	22	231.7	913	26	254.4	802	19
		108.0	743	6	115.1	907	8	120.5	1010	9	123.5	1083	10
TWLF 160A	33	195.7	1028	38	253.9	1001	26	285.0	1123	33	320.5	1011	23
		103.4	857	8	110.0	1043	11	115.1	1147	13	114.1	1246	15
	35	190.3	1000	36	248.1	978	25	279.9	1103	31	308.3	972	22
		107.6	854	8	114.7	1040	11	119.8	1146	13	122.7	1236	14
	37	183.0	962	34	241.8	953	24	272.9	1076	30	300.9	949	21
		112.2	846	8	119.0	1034	11	124.8	1140	13	127.8	1229	14
	39	176.8	929	33	235.2	927	23	266.3	1050	28	293.5	925	20
		116.5	841	8	124.0	1030	10	129.9	1136	12	133.3	1223	14
	41	169.5	891	31	226.7	893	22	258.6	1019	27	285.7	901	19
		121.9	835	8	129.5	1021	10	135.3	1129	12	138.3	1216	14
TWLF 400A	33	484.3	2545	36	629.5	2481	25	708.8	2794	30	793.7	2503	21
		245.2	2091	15	260.9	2552	20	273.3	2815	24	270.4	3051	26
	35	468.2	2461	34	614.7	2423	24	692.8	2731	29	763.6	2408	20
		254.9	2073	15	271.4	2540	20	284.2	2801	24	290.8	3023	26
	37	451.7	2374	32	598.8	2360	24	677.3	2670	28	745.6	2351	20
		265.2	2055	15	282.7	2527	11	295.5	2789	23	302.9	3006	25
	39	436.3	2293	31	582.0	2294	22	659.4	2599	26	730.0	2302	19
		275.6	2041	15	294.3	2512	19	307.9	2773	23	315.8	2998	25
	41	419.0	2202	38	565.7	2230	21	643.9	2538	25	711.6	2244	18
		287.5	2025	15	306.4	2500	19	321.5	2767	23	328.7	2982	25
TWLF 460A	33	564.3	2966	47	714.2	2815	32	806.8	3180	40	887.9	2800	27
		286.0	2438	17	303.3	2917	23	317.6	3223	26	325.5	3479	29
	35	545.5	2867	44	697.9	2751	30	788.1	3106	38	868.0	2737	26
		296.8	2414	17	314.9	2903	22	330.1	3205	25	338.8	3459	29
	37	522.4	2746	42	679.6	2679	29	768.7	3030	36	847.3	2672	25
		308.7	2382	17	328.1	2889	22	344.1	3190	25	352.5	3439	28
	39	501.3	2634	40	660.2	2602	27	753.1	2968	34	830.8	2620	24
		321.0	2357	16	341.8	2872	22	358.1	3185	25	367.0	3434	28
	41	477.8	2511	38	641.1	2527	26	731.7	2884	33	807.8	2547	23
		334.4	2328	16	355.8	2858	22	373.2	3168	25	383.0	3414	27

Notes) Above table is based on 5K, 4K, 3K temperature gap between chilled water inlet & outlet. (Fouling factor 0.000086m^2 °C/W(0.0001m^2·h·°C/kcal))
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※Legend
LCWT : Leaving Chilled Water Temperature (°C)
PD : Pressure Drop (L/min)
CDW : Condensing Water
CCpa : Cooling Capacity (kW)
PC : Power Consumptuon(kW)
Eva : Evaporator
FR : Flow Rate (L/min)
CW : Cooling Water
Con : Condenser

Performance Data

R-134a Type(50Hz)

↘ TWRS 020A~TWRS 065A

Model	LCWT	Cooling Water Outet Temperature (°C)											
		5°C			7°C			9°C			11°C		
		CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD
		PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa
	°C	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.
		kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.
TWRS 020A	33	53.4	153	25	56.7	163	29	61.0	175	33	64.0	183	37
		13.3	191	20	13.9	202	22	14.1	215	24	14.9	226	26
	35	52.4	150	24	55.7	160	27	59.7	171	31	64.1	184	36
		13.8	190	19	14.4	201	22	14.6	213	24	14.8	226	26
	37	51.4	147	23	55.3	159	26	58.5	168	30	63.0	181	34
		14.3	188	19	14.5	200	21	15.2	211	23	15.3	224	25
	39	50.3	144	22	54.3	156	25	58.2	167	29	61.7	177	33
		14.9	187	19	15.1	199	21	15.3	211	23	16.0	223	25
	41	49.2	141	21	53.1	152	24	56.9	163	28	61.3	176	31
		15.6	186	18	15.8	198	20	15.9	209	22	16.1	222	25
TWRS 030A	33	74.7	214	37	80.4	230	42	86.5	248	49	90.7	260	56
		18.0	266	22	18.2	283	25	18.5	301	27	19.6	316	30
	35	74.3	213	36	79.0	226	41	84.6	243	47	91.0	261	54
		18.1	265	22	18.9	281	25	19.2	298	27	19.4	316	29
	37	72.9	209	34	78.5	225	39	83.0	238	45	89.2	256	52
		18.9	263	21	19.1	280	24	19.9	295	26	20.2	314	29
	39	71.4	205	33	77.0	221	38	82.5	237	43	87.5	251	49
		19.6	261	21	19.9	278	23	20.1	294	26	21.0	311	28
	41	69.1	198	31	75.0	215	36	80.8	232	41	86.8	249	47
		21.0	258	20	20.7	274	23	20.9	292	25	21.2	310	27
TWRS 035A	33	97.8	280	30	103.9	298	34	111.7	320	39	117.7	337	45
		21.8	343	36	22.7	363	40	23.1	386	44	24.5	408	49
	35	96.0	275	29	102.0	292	33	109.8	315	38	117.9	338	43
		22.6	340	35	23.6	360	39	23.9	383	43	24.2	407	48
	37	94.1	270	28	101.5	291	32	107.6	308	36	115.6	331	41
		23.5	337	34	23.8	359	38	24.9	380	42	25.2	404	47
	39	92.2	264	26	99.3	285	30	107.0	307	35	113.4	325	39
		24.5	335	34	24.8	356	38	25.1	379	42	26.2	400	46
	41	89.2	256	25	97.3	279	29	104.7	300	33	112.5	323	38
		26.2	331	33	25.8	353	37	26.2	375	41	26.5	398	45
TWRS 040A	33	107.5	308	34	115.9	332	39	124.6	357	45	131.3	376	52
		25.1	380	32	25.4	405	35	25.8	431	39	27.4	455	44
	35	107.1	307	33	113.7	326	38	122.4	351	43	131.5	377	50
		25.3	380	31	26.4	402	34	26.7	427	39	27.1	455	43
	37	105.0	301	32	113.2	325	36	120.0	344	42	129.1	370	48
		26.3	376	31	26.6	401	34	27.8	424	38	28.1	451	42
	39	102.9	295	30	110.8	318	35	119.4	342	40	126.4	362	46
		27.3	373	30	27.7	397	33	28.1	423	37	29.3	446	41
	41	99.1	284	29	108.5	311	33	116.8	335	38	123.9	355	43
		29.2	368	29	28.9	394	33	29.2	419	36	30.5	443	40
TWRS 055A	33	141.8	406	29	150.0	430	34	161.5	463	39	169.4	486	44
		32.5	500	16	34.0	527	18	34.4	562	20	36.5	590	23
	35	138.7	398	28	147.4	423	33	158.5	454	37	169.8	487	42
		33.7	494	16	35.2	523	18	35.7	557	20	36.1	590	23
	37	135.9	390	27	146.5	420	31	155.6	446	36	166.5	477	41
		35.1	490	16	35.6	522	18	37.1	552	20	37.6	585	22
	39	133.2	382	26	143.4	411	30	153.9	441	34	163.2	468	39
		36.5	486	16	37.0	517	17	37.5	549	20	39.1	580	22
	41	128.8	369	25	140.4	402	28	150.7	432	32	161.9	464	37
		39.1	481	15	38.5	513	17	39.0	544	19	39.5	577	21
TWRS 065A	33	183.5	526	25	195.0	559	28	208.9	599	32	220.2	631	37
		39.6	640	12	41.4	678	14	41.9	719	15	44.5	759	17
	35	180.3	517	24	191.4	549	27	205.2	588	31	220.5	632	35
		41.1	635	12	43.0	672	13	43.5	713	15	44.1	759	17
	37	176.7	507	23	190.5	546	26	201.2	577	29	216.5	621	34
		42.8	629	12	43.3	670	13	45.3	707	15	46.1	753	16
	39	172.9	496	22	185.7	532	25	200.0	573	28	211.9	607	32
		44.6	624	11	45.1	662	13	45.7	704	14	47.7	744	16
	41	167.4	480	21	181.8	521	24	195.6	561	27	210.5	603	31
		47.6	616	11	47.0	656	12	47.6	697	14	48.1	741	16

Notes) Above table is based on 5K temperature gap between chilled water inlet & outlet. (Fouling factor 0.000086m^2 °C/W(0.0001m^2·h·°C/kcal))
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FR : Flow Rate (L/min)
PD : Pressure Drop (L/min)
PC : Power Consumptuon(kW)
CW : Cooling Water
CDW : Condensing Water
Eva : Evaporator
Con : Condenser

Performance Data

R-134a Type(50Hz)

↘ TWRS 085A~TWRS 165A

Model	LCWT	Cooling Water Outet Temperature (°C)											
		5°C			7°C			9°C			11°C		
		CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD
		PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa
	°C	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.
		kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.
TWRS 085A	33	236.3	677	30	250.8	719	34	268.6	770	39	288.8	828	45
		52.4	828	21	54.8	876	23	55.5	929	25	56.1	989	28
	35	231.8	664	29	246.3	706	33	263.8	756	38	283.4	812	43
		54.4	820	20	56.8	869	23	57.6	921	25	58.3	980	27
	37	227.1	651	28	243.8	699	32	258.9	742	36	278.2	798	39
		56.7	814	20	57.3	863	22	59.8	914	25	60.6	971	26
	39	222.5	638	26	238.7	684	30	257.0	737	34	271.3	778	39
		58.9	807	19	59.7	855	22	60.4	910	25	63.1	959	26
	41	215.1	617	25	233.6	670	29	251.7	722	33	269.4	772	38
		63.0	797	19	62.2	848	21	62.9	902	24	63.7	955	26
TWRS 100A	33	273.3	783	33	294.1	843	38	316.4	907	43	333.1	955	49
		60.2	956	25	61.0	1018	28	61.7	1084	30	65.6	1143	34
	35	272.0	780	32	289.0	828	36	310.6	890	41	333.9	957	47
		60.7	954	24	63.3	1010	27	64.2	1074	30	64.9	1143	33
	37	266.6	764	30	287.3	824	35	304.9	874	40	327.4	939	45
		63.1	945	24	63.9	1007	27	66.6	1065	29	67.5	1132	33
	39	261.6	750	29	281.7	808	33	302.8	868	38	321.1	920	43
		65.6	938	23	66.4	998	26	67.3	1061	29	70.2	1122	32
	41	251.6	721	28	275.5	790	32	296.6	850	36	314.2	901	41
		70.2	922	23	69.2	988	25	70.0	1051	28	73.2	1111	31
TWRS 115A	33	319.0	914	23	343.6	985	27	369.3	1059	30	389.2	1116	35
		70.0	1115	24	70.9	1188	27	71.8	1264	29	76.2	1334	33
	35	316.1	906	22	337.2	967	25	362.9	1040	29	389.7	1117	33
		70.5	1108	24	73.7	1178	26	74.5	1254	29	75.5	1334	32
	37	310.3	890	22	334.3	958	25	355.8	1020	28	382.6	1097	32
		73.3	1100	23	74.1	1171	26	77.5	1242	28	78.4	1322	31
	39	303.7	871	21	327.4	939	24	347.5	996	27	374.8	1074	30
		76.3	1089	23	77.2	1160	25	80.6	1227	28	81.7	1309	31
	41	294.1	843	20	320.2	918	23	344.8	988	25	365.7	1048	29
		81.5	1077	22	80.5	1149	25	81.5	1222	27	84.9	1292	30
TWRS 130A	33	359.6	1031	23	387.4	1111	27	418.5	1200	30	441.0	1264	35
		77.5	1253	25	78.4	1335	28	79.3	1427	31	84.2	1506	35
	35	358.4	1027	22	380.7	1091	25	409.2	1173	29	439.9	1261	33
		77.9	1251	25	81.3	1324	27	82.4	1409	31	83.3	1500	34
	37	351.4	1007	21	373.3	1070	25	401.8	1152	28	432.0	1238	32
		81.1	1240	24	84.6	1313	28	85.6	1397	30	86.5	1486	33
	39	344.1	986	20	370.8	1063	24	393.7	1129	26	423.3	1213	30
		84.4	1228	24	85.4	1308	27	89.1	1384	29	90.1	1472	33
	41	337.0	966	22	363.3	1041	22	391.1	1121	25	414.8	1189	29
		87.8	1218	25	88.9	1296	26	89.9	1379	29	93.7	1458	32
TWRS 165A	33	458.1	1313	34	492.8	1413	39	530.3	1520	44	560.4	1606	50
		97.6	1593	30	99.0	1696	34	100.1	1807	37	106.5	1912	42
	35	455.9	1307	32	484.3	1388	37	520.5	1492	42	559.5	1604	48
		98.4	1589	30	102.7	1683	33	104.0	1790	36	105.2	1905	41
	37	447.4	1283	31	481.5	1380	36	511.0	1465	30	548.7	1573	46
		102.2	1576	29	103.6	1677	32	108.1	1775	36	109.5	1887	40
	39	438.1	1256	30	472.1	1353	34	500.5	1435	39	538.2	1543	44
		106.4	1561	28	107.7	1662	32	112.6	1758	35	113.8	1869	39
	41	421.9	1209	28	461.7	1324	32	497.2	1425	37	526.6	1510	42
		113.8	1536	28	112.3	1645	31	113.5	1751	34	118.6	1850	38

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CCpa : Cooling Capacity (kW)
FR : Flow Rate (L/min)
PD : Pressure Drop (L/min)
PC : Power Consumptuon(kW)
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CDW : Condensing Water
Eva : Evaporator
Con : Condenser

Performance Data

R-134a Type(50Hz)

↘ TWRD 060A~TWRD 170A

Model	LCWT	Cooling Water Outet Temperature (°C)											
		5°C			7°C			9°C			11°C		
		CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD
		PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa
	°C	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.
		kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.
TWRD 060A	33	148.6	426	32	157.2	451	37	169.0	484	42	181.2	519	48
		35.0	526	18	36.6	556	20	37.0	591	23	37.4	627	25
	35	146.0	419	31	156.4	448	34	166.2	476	40	177.8	510	38
		36.4	523	18	36.8	554	21	38.4	587	23	39.0	621	19
	37	142.4	408	29	153.6	440	33	162.8	467	39	174.4	500	35
		37.8	517	18	38.2	550	17	40.0	581	22	40.4	616	18
	39	139.4	400	28	150.4	431	32	161.2	462	37	170.8	490	35
		39.4	513	17	39.8	545	17	40.4	578	22	42.2	611	18
	41	134.8	386	27	147.2	422	31	157.6	452	35	169.8	487	33
		42.0	507	17	41.4	541	19	42.0	572	21	42.6	609	18
TWRD 070A	33	195.4	560	27	207.4	595	29	223.2	640	35	238.8	685	40
		43.6	685	14	45.6	725	16	46.2	772	17	46.8	819	19
	35	191.6	549	26	206.6	592	28	218.4	626	33	234.6	673	38
		45.4	679	13	46.0	724	15	48.0	764	17	48.6	812	19
	37	188.0	539	25	202.4	580	28	214.2	614	32	230.0	659	37
		47.2	674	13	47.8	717	15	49.8	757	17	50.6	804	18
	39	184.0	527	23	198.4	569	27	212.6	609	30	225.6	647	35
		49.2	669	13	49.8	712	14	50.4	754	16	52.6	798	18
	41	177.8	510	22	194.0	556	26	208.2	597	29	224.0	642	33
		52.6	660	13	51.8	705	14	52.4	747	16	53.0	794	18
TWRD 080A	33	215.4	617	27	232.2	666	31	249.8	716	35	262.0	751	40
		50.4	762	19	51.0	812	21	51.6	864	24	55.0	909	26
	35	214.6	615	26	227.8	653	29	245.2	703	34	262.6	753	39
		50.8	761	19	53.2	806	21	53.8	857	24	54.2	908	25
	37	210.4	603	25	226.8	650	28	239.4	686	32	257.6	738	37
		52.8	755	18	53.4	803	20	55.8	846	17	56.6	901	25
	39	206.0	591	24	222.0	636	27	238.2	683	31	252.6	724	35
		55.0	748	18	55.8	796	20	56.4	845	23	58.8	893	25
	41	199.4	572	23	216.6	621	26	232.8	667	29	250.6	718	34
		58.8	740	18	58.0	787	20	58.8	836	22	59.4	889	25
TWRD 110A	33	285.6	819	35	307.4	881	40	332.0	952	46	349.6	1002	53
		67.2	1011	25	68.0	1076	28	68.8	1149	31	73.2	1212	34
	35	284.2	815	34	302.0	866	38	324.6	931	44	348.6	999	50
		67.6	1008	35	70.6	1068	27	71.6	1136	30	72.6	1207	34
	37	278.6	799	32	300.2	861	37	318.6	913	42	342.2	981	48
		70.4	1000	25	71.2	1065	27	74.4	1127	30	75.4	1197	33
	39	273.0	783	31	294.0	843	35	316.4	907	40	335.2	961	46
		73.2	992	29	74.2	1056	26	75.2	1123	29	78.4	1186	32
	41	264.0	757	30	287.8	825	34	310.0	889	39	328.4	941	44
		78.4	982	24	77.2	1046	26	78.2	1113	28	81.6	1175	32
TWRD 130A	33	375.4	1076	24	403.8	1158	28	434.6	1246	31	458.0	1313	36
		81.0	1308	27	82.0	1393	30	83.0	1484	33	88.2	1566	37
	35	373.6	1071	23	397.0	1138	26	427.2	1225	30	458.6	1315	35
		81.6	1305	27	85.2	1382	29	86.2	1472	33	87.2	1565	36
	37	364.8	1046	22	393.2	1127	26	419.0	1201	29	450.4	1291	33
		84.8	1289	26	85.8	1373	29	89.6	1458	32	90.6	1551	36
	39	357.8	1026	21	385.6	1105	25	408.8	1172	28	441.4	1265	32
		88.2	1279	25	89.2	1361	28	93.2	1439	31	94.4	1536	35
	41	349.8	1003	20	377.2	1081	23	406.2	1164	26	430.8	1235	30
		92.0	1266	25	93.0	1348	28	94.0	1434	31	98.2	1516	34
TWRD 170A	33	474.8	1361	33	511.6	1467	38	550.0	1577	44	579.0	1660	50
		107.0	1668	31	108.2	1777	34	109.6	1891	38	116.6	1994	42
	35	472.6	1355	32	502.2	1440	37	540.4	1549	42	580.4	1664	48
		107.8	1664	30	112.4	1762	33	113.8	1875	37	115.2	1994	41
	37	463.8	1330	31	499.2	1431	35	530.0	1519	40	569.2	1632	46
		112.0	1651	29	113.4	1756	33	118.4	1859	36	120.0	1976	41
	39	454.2	1302	29	489.6	1404	34	526.4	1509	38	558.4	1601	44
		116.6	1636	29	118.0	1742	32	119.6	1852	36	124.8	1959	40
	41	439.2	1259	28	478.8	1373	32	515.6	1478	37	546.4	1566	42
		124.6	1616	28	123.0	1725	32	124.4	1835	35	130.0	1939	39

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Performance Data

R-134a Type(50Hz)

↘ TWRD 200A~330A, TWRT 105A~120A

Model	LCWT	Cooling Water Outet Temperature (°C)											
		5°C			7°C			9°C			11°C		
		CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD
		PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa
	°C	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.
		kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.
TWRD 200A	33	546.6	1567	31	588.2	1686	35	632.8	1814	40	666.2	1910	46
		120.4	1912	33	122.0	2036	26	123.4	2168	28	131.2	2286	31
	35	544.0	1559	30	578.0	1657	34	621.2	1781	38	667.8	1914	44
		121.4	1907	23	126.6	2020	25	128.4	2149	28	129.8	2286	31
	37	533.2	1529	28	574.6	1647	35	609.8	1748	37	654.8	1877	42
		126.2	1890	22	127.8	2014	33	133.2	2130	27	135.0	2264	30
	39	522.6	1498	27	563.4	1615	31	597.2	1712	35	642.2	1841	40
		131.2	1874	22	132.8	1996	24	138.8	2110	26	140.4	2243	29
	41	503.2	1443	26	551.0	1580	30	593.2	1701	34	628.4	1801	39
		140.4	1845	21	138.4	1976	24	140.0	2102	26	146.4	2221	29
TWRD 230A	33	638.0	1829	20	687.2	1970	23	738.6	2117	26	778.4	2231	30
		140.0	2230	24	141.8	2376	27	143.6	2529	29	152.4	2668	33
	35	632.2	1812	20	674.4	1933	23	725.8	2081	25	779.4	2234	29
		141.0	2217	24	147.4	2356	26	149.0	2508	29	151.0	2667	32
	37	620.6	1779	19	668.6	1917	22	711.6	2040	25	765.2	2194	28
		146.6	2199	23	148.2	2341	26	155.0	2484	28	156.8	2643	31
	39	607.4	1741	18	654.8	1877	21	695.0	1992	24	749.6	2149	27
		152.6	2179	23	154.4	2320	25	161.2	2454	28	163.4	2617	31
	41	588.2	1686	17	640.4	1836	20	689.6	1977	23	731.4	2097	25
		163.0	2153	22	161.0	2297	25	163.0	2444	27	169.8	2583	30
TWRD 260A	33	731.0	2096	39	787.2	2257	45	830.2	2380	52	891.4	2555	59
		155.2	2540	26	157.0	2707	29	166.8	2858	32	168.8	3039	36
	35	724.8	2078	38	772.8	2215	43	831.4	2383	49	876.2	2512	57
		156.4	2526	25	169.2	2700	28	165.0	2856	31	175.2	3014	35
	37	711.4	2039	36	755.8	2167	41	812.2	2328	47	876.6	2513	54
		162.4	2505	25	169.4	2652	28	171.8	2821	31	173.6	3011	34
	39	696.8	1997	35	750.8	2152	40	796.8	2284	45	856.6	2456	52
		169.0	2482	24	171.0	2642	27	178.4	2796	30	180.4	2973	33
	41	681.4	1953	33	734.4	2105	38	790.6	2266	43	838.4	2403	50
		176.2	2458	24	178.4	2617	27	180.4	2784	29	188.0	2942	33
TWRD 330A	33	916.2	2626	30	985.6	2825	34	1060.6	3040	39	1120.8	3213	44
		195.2	3186	30	198.0	3393	34	200.2	3614	37	213.0	3824	42
	35	911.8	2614	28	968.6	2777	32	1041.0	2984	37	1119.0	3208	42
		196.8	3178	30	205.4	3365	33	208.0	3580	36	210.4	3811	41
	37	894.8	2565	27	963.0	2761	31	1022.0	2930	35	1097.4	3146	41
		204.4	3151	29	207.2	3355	32	216.2	3550	36	219.0	3774	40
	39	876.2	2512	26	944.2	2707	30	1001.0	2870	34	1076.4	3086	39
		212.8	3122	28	215.4	3324	32	225.2	3515	35	227.6	3738	39
	41	843.8	2419	25	923.4	2647	29	994.4	2851	32	1053.2	3019	37
		227.6	3071	28	224.6	3291	31	227.0	3501	34	237.2	3699	38
TWRT 105A	33	296.4	850	34	319.5	916	39	343.5	985	44	362.1	1038	50
		67.2	1042	29	67.8	1110	32	68.7	1182	35	72.9	1247	39
	35	295.2	846	33	313.5	899	37	337.5	968	42	362.4	1039	49
		67.5	1040	28	70.5	1101	31	71.4	1172	35	72.3	1246	38
	37	289.2	829	32	311.7	894	36	330.9	949	41	355.8	1020	47
		70.2	1030	28	71.1	1097	31	74.1	1161	34	75.0	1235	38
	39	283.5	813	31	305.7	876	34	328.8	943	39	348.6	999	45
		73.2	1023	27	74.1	1089	30	75.0	1158	33	78.3	1224	37
	41	274.2	786	28	299.1	857	23	322.2	924	37	341.7	980	43
		78.3	1011	27	77.1	1078	30	78.0	1147	33	81.3	1213	36
TWRT 120A	33	326.4	936	34	351.6	1008	35	378.0	1084	40	398.4	1142	46
		75.0	1151	29	75.9	1226	30	77.1	1305	33	81.6	1376	36
	35	324.9	931	29	345.0	989	33	371.4	1065	38	399.3	1145	44
		75.6	1148	26	78.9	1215	29	79.8	1293	32	80.7	1376	36
	37	318.9	914	28	343.5	985	32	364.2	1044	37	391.8	1123	42
		78.6	1140	26	79.5	1213	29	83.1	1282	31	84.0	1364	35
	39	310.8	891	27	336.6	965	31	357.3	1024	35	383.7	1100	40
		81.6	1125	25	82.8	1202	28	86.4	1272	31	87.6	1351	34
	41	300.6	862	26	327.9	940	30	354.6	1017	34	376.2	1078	39
		87.3	1112	25	86.1	1187	28	87.3	1267	30	90.9	1339	34

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Performance Data

R-134a Type(50Hz)

↘ TWRF 140A~TWRF 460A

Model	LCWT	Cooling Water Outet Temperature (°C)											
		5°C			7°C			9°C			11°C		
		CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD
		PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa
	°C	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.
		kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.
TWRF 140A	33	390.8	1120	27	414.8	1189	31	446.4	1280	35	477.6	1369	40
		87.2	1370	14	91.2	1451	15	92.4	1545	17	93.6	1637	19
	35	383.2	1099	26	413.2	1185	29	436.8	1252	33	469.2	1345	38
		90.8	1359	13	92.0	1448	15	96.0	1527	17	97.2	1624	19
	37	376.0	1078	25	404.8	1160	28	428.4	1228	32	460.0	1319	37
		94.4	1348	13	95.6	1434	15	99.6	1514	17	101.2	1609	18
	39	368.0	1055	27	396.8	1137	27	425.2	1219	30	451.2	1293	35
		98.4	1337	25	99.6	1423	14	100.8	1508	16	105.2	1595	18
	41	355.6	1019	22	388.0	1112	26	416.4	1194	29	448.0	1284	33
		105.2	1321	13	103.6	1409	14	104.8	1494	16	106.0	1588	18
TWRF 160A	33	430.8	1235	27	464.4	1331	31	499.6	1432	35	524.0	1502	40
		100.8	1524	19	102.0	1624	21	103.2	1728	24	110.0	1817	26
	35	429.2	1230	26	455.6	1306	29	490.4	1406	34	525.2	1506	39
		101.6	1522	19	106.4	1611	21	107.6	1714	24	108.4	1816	25
	37	420.8	1206	25	453.6	1300	28	478.8	1373	32	515.2	1477	37
		105.6	1509	18	106.8	1606	20	111.6	1692	23	113.2	1801	25
	39	412.0	1181	24	444.0	1273	27	476.4	1366	31	505.2	1448	35
		110.0	1496	18	111.6	1593	20	112.8	1689	23	117.6	1785	25
	41	398.8	1143	23	433.2	1242	26	465.6	1335	29	501.2	1437	34
		117.6	1480	18	116.0	1574	20	117.6	1672	22	118.8	1777	25
TWRF 400A	33	1071.2	3071	25	1154.4	3309	29	1241.2	3558	33	1308.4	3751	37
		240.4	3760	35	243.2	4006	39	246.4	4264	44	261.6	4501	49
	35	1067.2	3059	24	1134.0	3251	27	1219.6	3496	31	1309.6	3754	36
		241.6	3752	35	252.4	3974	38	255.6	4229	43	259.2	4497	48
	37	1042.0	2987	23	1122.8	3219	27	1195.6	3427	30	1286.0	3687	34
		251.2	3707	34	254.4	3948	38	266.0	4190	42	269.2	4458	47
	39	1021.2	2927	22	1099.6	3152	25	1184.0	3394	29	1254.4	3596	33
		261.2	3676	33	265.2	3912	37	268.0	4162	41	280.0	4399	46
	41	987.2	2830	21	1076.8	3087	24	1158.4	3321	27	1246.4	3573	31
		279.6	3631	33	275.6	3877	36	279.6	4122	40	282.8	4384	45
TWRF 460A	33	1240.8	3557	33	1318.8	3781	38	1418.4	4066	43	1523.6	4368	49
		270.8	4333	40	282.8	4591	45	286.8	4888	50	290.4	5200	56
	35	1217.2	3489	32	1312.4	3762	36	1392.0	3990	41	1497.2	4292	47
		281.6	4297	39	285.2	4580	44	298.0	4845	49	301.2	5155	54
	37	1194.4	3424	30	1286.4	3688	35	1366.0	3916	40	1467.6	4207	45
		292.4	4262	39	296.8	4539	43	309.6	4803	48	313.6	5106	53
	39	1169.2	3352	29	1260.8	3614	33	1356.4	3888	38	1439.2	4126	43
		304.8	4225	38	308.4	4498	42	312.8	4785	47	326.0	5060	52
	41	1131.6	3244	28	1229.2	3524	32	1328.4	3808	36	1427.6	4092	42
		325.2	4176	37	322.8	4449	41	325.2	4740	46	329.6	5037	51

Notes) Above table is based on 5K temperature gap between chilled water inlet & outlet. (Fouling factor 0.000086m^2 °C/W(0.0001m^2·h·°C/kcal))
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LCWT : Leaving Chilled Water Temperature (°C)
CCpa : Cooling Capacity (kW)
FR : Flow Rate (L/min)
PD : Pressure Drop (L/min)
PC : Power Consumptuon(kW)
CW : Cooling Water
CDW : Condensing Water
Eva : Evaporator
Con : Condenser

Performance Data

R-134a Type(50Hz)

↘ TWLS 020A~TWLS 065A

Model	LCWT	Brine In/ Outet Temperature (°C)											
		-12/-15°C			-6/-10°C			-3/-7°C			0/-5°C		
		CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD
		PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa
	°C	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.
		kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.
TWLS 020A	33	20.9	110	25	27.0	107	18	31.2	123	23	34.3	108	16
		11.4	93	7	12.2	112	9	12.2	125	10	12.5	134	11
	35	20.2	106	25	26.4	104	18	30.0	118	22	33.6	106	15
		11.9	92	6	12.5	112	9	13.1	124	10	13.0	134	11
	37	19.6	103	24	25.9	102	17	29.4	116	21	32.1	101	14
		12.4	92	6	13.1	112	8	13.7	123	10	14.0	132	11
	39	18.9	99	23	25.2	99	16	28.6	113	20	31.4	99	14
		12.9	91	6	13.6	111	8	14.2	123	10	14.6	132	11
	41	18.3	96	22	24.3	96	15	27.7	109	19	30.7	97	13
		13.5	91	6	14.2	110	8	14.9	122	10	15.1	131	11
TWLS 030A	33	29.7	156	39	38.6	152	26	44.1	174	33	48.6	153	23
		15.0	128	7	15.9	156	10	16.0	172	11	16.4	186	13
	35	28.9	152	37	37.5	148	25	42.5	167	32	47.6	150	22
		15.6	128	7	16.5	155	9	17.2	171	11	17.0	185	13
	37	28.0	147	35	36.6	144	25	41.5	164	30	46.6	147	21
		16.2	127	7	17.2	154	9	18.0	171	11	17.7	184	12
	39	27.1	142	33	35.8	141	24	40.5	160	29	44.7	141	20
		16.9	126	7	17.9	154	9	18.7	170	11	19.1	183	12
	41	26.1	137	32	34.8	137	23	39.6	156	27	43.6	137	19
		17.6	125	7	18.7	153	9	19.4	169	11	19.8	182	12
TWLS 035A	33	37.7	198	31	48.9	193	22	55.4	218	26	62.0	196	19
		18.5	161	12	19.7	197	16	30.3	246	18	20.3	236	21
	35	36.7	193	30	47.8	188	21	54.2	214	25	60.8	192	18
		19.3	161	12	20.5	196	15	21.4	217	18	21.1	235	20
	37	35.7	187	28	46.8	184	20	53.1	209	25	58.4	184	17
		20.1	160	12	21.3	195	15	22.3	216	18	22.8	233	20
	39	34.3	180	27	45.5	179	19	51.7	204	24	57.2	180	16
		20.9	158	11	22.2	194	15	23.2	215	18	23.6	232	20
	41	33.1	174	25	44.2	174	18	50.4	199	23	55.7	176	16
		21.8	157	11	23.1	193	15	24.1	214	17	24.7	231	19
TWLS 040A	33	42.3	222	36	54.7	216	25	63.1	249	31	69.3	218	22
		20.9	181	10	22.2	220	14	22.3	245	16	22.8	264	18
	35	40.9	215	34	53.5	211	24	60.7	239	29	67.9	214	21
		21.6	179	10	23.0	219	14	24.0	243	16	23.7	263	18
	37	39.9	210	33	52.3	206	23	59.3	234	28	65.4	206	2
		22.5	179	10	23.9	218	14	25.0	242	16	25.5	260	18
	39	38.3	202	31	50.9	201	22	57.9	228	27	63.8	201	19
		23.4	177	10	24.9	217	13	26.0	240	16	26.6	259	18
	41	36.9	194	30	49.6	195	21	56.4	222	25	62.2	196	18
		24.4	176	10	26.0	217	13	27.0	239	15	27.6	258	17
TWLS 055A	33	55.3	290	30	71.6	282	22	82.5	325	26	90.8	286	18
		28.0	239	5	29.6	290	7	29.8	322	8	30.6	348	9
	35	53.8	283	29	70.0	276	21	79.3	313	25	88.9	280	18
		29.1	238	5	30.8	289	7	32.2	320	8	31.8	346	9
	37	52.0	273	27	68.3	269	20	77.6	306	25	85.5	270	17
		30.3	236	5	32.1	288	7	33.4	318	8	34.2	343	9
	39	50.3	264	26	66.7	263	19	75.6	298	23	83.4	263	16
		31.5	234	5	33.3	287	7	34.9	317	8	35.6	341	9
	41	48.5	255	25	64.8	256	18	73.8	291	22	81.4	257	15
		32.8	233	5	34.7	285	7	36.3	315	8	37.1	340	9
TWLS 065A	33	71.8	377	25	93.1	367	18	107.3	423	23	117.9	372	15
		34.1	304	4	36.2	371	5	36.5	412	6	37.2	445	7
	35	70.0	368	25	91.0	359	17	103.1	407	22	115.0	363	15
		35.5	302	4	37.5	368	5	39.2	408	6	38.7	441	7
	37	68.0	358	24	88.8	350	16	100.8	397	21	110.6	349	14
		36.9	301	4	39.1	367	5	40.8	406	6	41.6	436	7
	39	65.5	344	23	86.5	341	16	97.9	386	20	108.1	341	13
		38.4	298	4	40.7	365	5	42.5	402	6	43.4	434	7
	41	63.3	333	21	84.2	332	15	95.5	376	19	105.2	332	13
		40.0	296	4	42.4	363	5	44.1	400	6	45.1	431	6

Notes) Above table is based on 5K, 4K, 3K temperature gap between chilled water inlet & outlet. (Fouling factor 0.000086m² °C/W(0.0001m²·h·°C/kcal))
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Eva : Evaporator
Con : Condenser

Performance Data

R-134a Type(50Hz)

↘ TWLS 085A~TWLS 165A

Model	LCWT	Brine In/ Outet Temperature (°C)											
		-12/-15°C			-6/-10°C			-3/-7°C			0/-5°C		
		CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD
		PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa
	°C	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.
		kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.
TWLS 085A	33	92.6	487	31	119.8	472	22	137.5	542	27	151.2	477	19
		45.0	394	6	47.7	480	9	48.0	532	10	49.1	574	12
	35	89.8	472	29	117.4	463	21	132.2	521	25	148.1	467	18
		46.7	391	6	49.5	478	9	51.7	527	10	51.1	571	11
	37	87.3	459	28	113.9	449	20	129.2	509	25	142.4	449	17
		48.6	390	6	51.5	474	8	53.8	525	10	55.0	566	11
	39	84.0	441	27	111.0	438	19	126.2	497	24	139.0	438	16
		50.6	386	6	53.7	472	8	56.0	522	10	57.3	563	11
	41	80.9	425	25	107.8	425	18	122.9	484	23	135.5	427	16
		52.8	383	6	55.9	469	8	58.4	520	10	59.7	560	11
TWLS 100A	33	108.0	568	35	139.4	549	25	160.5	633	30	177.1	559	21
		50.2	453	8	53.2	552	11	53.6	614	13	54.8	665	14
	35	104.7	551	33	135.3	533	24	154.4	608	28	173.5	547	19
		52.1	450	8	56.3	549	11	57.6	608	12	57.0	661	14
	37	101.9	535	32	133.4	526	23	151.0	595	27	170.0	536	19
		54.2	447	8	57.3	547	10	60.0	605	12	59.1	657	14
	39	98.9	520	30	130.0	512	22	147.5	581	26	163.2	514	18
		56.4	445	8	59.8	544	10	62.4	602	12	63.8	651	14
	41	94.9	499	29	126.4	498	20	143.7	566	25	159.1	502	17
		58.8	441	8	62.3	541	10	65.0	598	12	66.5	647	13
TWLS 115A	33	126.1	663	25	162.7	641	18	187.3	738	22	206.7	652	15
		58.3	529	8	61.9	644	10	62.3	716	12	63.8	776	14
	35	122.2	642	24	159.3	628	17	180.1	710	21	202.8	640	14
		60.5	524	8	64.2	641	10	67.1	709	12	66.1	771	14
	37	118.9	625	23	155.6	613	16	176.3	695	20	198.4	626	14
		63.0	521	8	66.8	638	10	69.7	705	12	68.8	766	13
	39	115.4	607	22	151.6	598	15	172.1	679	19	189.5	598	13
		65.6	519	8	69.5	634	10	72.6	702	12	74.3	756	13
	41	110.8	582	21	147.5	581	15	167.7	661	18	184.8	583	12
		68.4	514	7	72.4	630	10	75.6	697	12	77.4	751	13
TWLS 130A	33	142.2	747	25	184.5	727	17	212.0	836	22	233.1	735	15
		64.7	593	8	68.5	725	11	69.1	806	13	70.5	870	14
	35	138.7	729	24	180.5	711	17	204.2	805	21	228.5	721	14
		67.2	590	8	71.2	721	11	74.3	798	13	73.3	865	14
	37	134.9	709	23	176.3	695	16	199.7	787	20	223.6	705	14
		69.9	587	8	74.1	718	11	77.3	794	12	76.2	860	14
	39	131.0	688	22	171.0	674	15	195.0	769	19	214.9	678	13
		72.7	584	8	77.1	711	10	80.5	790	12	82.1	851	14
	41	126.0	662	21	166.4	656	14	189.2	746	18	209.7	661	12
		75.8	579	8	80.3	707	10	83.8	782	12	85.6	846	14
TWLS 165A	33	181.4	954	35	233.9	922	25	269.1	1061	30	297.0	937	21
		81.4	753	10	86.3	918	13	86.9	1021	15	88.9	1106	17
	35	176.0	925	34	229.1	903	24	258.9	1021	29	291.0	918	20
		84.5	747	9	89.4	913	13	93.6	1011	15	92.3	1099	17
	37	171.5	901	32	223.8	882	23	253.5	999	28	285.2	899	20
		87.8	743	9	93.0	908	13	97.1	1005	15	95.9	1093	17
	39	166.2	873	31	218.1	860	22	247.5	975	26	273.7	863	19
		91.5	739	9	96.9	903	12	101.2	999	15	103.5	1081	16
	41	159.8	840	29	212.1	836	21	241.1	950	25	266.8	841	18
		95.3	731	9	101.0	897	12	105.5	993	14	107.9	1074	16

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Con : Condenser

Performance Data

R-134a Type(50Hz)

↘ TWLD 060A~TWLD 170A

Model	LCWT	Brine In/ Outet Temperature (°C)											
		-12/-15°C			-6/-10°C			-3/-7°C			0/-5°C		
		CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD
		PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa
	°C	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.
		kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.
TWLD 060A	33	57.9	304	33	75.0	296	23	85.0	335	28	94.6	298	20
		30.2	252	6	32.1	307	8	33.4	339	9	33.0	366	10
	35	56.3	296	31	73.5	290	22	82.6	326	27	92.8	293	19
		31.5	252	6	33.2	306	8	34.8	337	9	34.2	364	10
	37	54.4	286	30	71.5	282	21	80.9	319	26	89.1	281	18
		32.7	250	6	34.6	304	8	36.2	335	9	36.9	361	10
	39	52.5	276	28	69.8	275	20	78.9	311	25	87.0	274	17
		34.0	248	6	36.2	304	10	37.7	334	9	38.5	360	10
	41	50.5	266	27	67.5	266	19	76.8	303	24	84.8	267	16
		35.6	247	6	37.7	301	7	39.3	333	9	40.3	358	10
TWLD 070A	33	76.5	402	27	98.9	390	19	111.6	440	24	124.9	394	17
		37.7	327	4	40.0	398	6	41.8	440	7	41.2	476	8
	35	74.4	391	26	96.8	382	19	109.3	431	23	122.3	386	16
		39.2	326	4	41.6	397	6	43.4	437	7	42.8	473	8
	37	72.3	380	25	94.1	371	18	106.7	421	22	117.6	371	15
		40.7	324	4	43.2	393	6	45.1	435	7	46.1	469	8
	39	69.2	364	24	91.6	361	17	104.2	411	21	114.9	362	14
		42.5	320	4	44.9	391	6	47.0	434	7	48.1	467	7
	41	66.5	350	23	89.0	351	16	101.5	400	20	112.0	353	14
		44.2	317	4	46.9	390	6	49.0	431	7	50.0	464	7
TWLD 080A	33	85.1	447	27	110.6	436	20	127.5	503	25	140.1	442	17
		42.3	365	6	44.9	446	8	45.3	495	10	46.3	534	11
	35	82.8	435	26	108.3	427	19	122.1	481	23	136.6	431	16
		44.0	364	6	46.7	444	8	48.6	489	9	48.1	529	11
	37	80.5	423	25	105.2	415	18	119.2	470	22	131.3	414	16
		45.7	362	6	48.6	441	8	50.7	487	9	51.8	525	11
	39	77.6	408	25	102.3	403	17	116.3	458	21	128.2	404	15
		47.7	359	6	50.5	438	8	52.7	484	9	53.9	522	10
	41	74.8	393	23	99.5	392	16	113.1	446	20	125.1	394	14
		49.6	356	6	52.5	436	8	55.0	482	9	56.1	519	10
TWLD 110A	33	112.4	591	37	145.8	575	25	167.8	661	31	184.3	581	22
		56.1	483	8	59.5	588	11	60.1	653	13	61.6	705	15
	35	109.6	576	35	142.7	562	25	161.4	636	30	180.5	569	21
		58.2	481	8	61.8	586	11	64.7	648	13	63.9	701	14
	37	105.9	557	34	138.6	546	24	157.1	619	29	173.7	548	20
		60.7	478	8	64.3	582	11	67.3	643	13	68.8	695	14
	39	101.9	535	32	134.9	532	23	153.4	605	27	169.6	535	19
		63.2	473	8	67.1	579	11	70.0	640	12	71.7	692	14
	41	98.0	515	30	131.2	517	22	149.3	588	26	165.3	521	18
		65.9	470	8	70.0	577	10	72.9	637	12	74.6	688	14
TWLD 130A	33	147.8	777	25	190.7	752	18	219.5	865	22	242.3	764	15
		68.0	619	9	72.1	753	12	72.7	838	14	74.3	907	15
	35	144.2	758	25	186.4	735	17	211.1	832	21	237.6	749	15
		70.5	615	9	74.8	749	11	78.1	829	13	77.0	902	15
	37	139.3	732	24	182.3	719	16	206.6	815	20	232.5	733	14
		73.4	610	8	77.8	746	11	81.3	825	13	80.1	896	15
	39	135.3	711	23	177.7	700	16	201.8	795	20	223.1	704	13
		76.5	607	8	81.1	742	11	84.6	821	13	86.6	888	15
	41	129.9	683	21	172.8	681	44	196.5	775	19	216.5	683	13
		79.8	601	8	84.4	737	11	88.1	816	13	90.1	879	14
TWLD 170A	33	186.2	979	35	242.2	955	25	278.6	1098	30	306.2	966	21
		89.6	791	10	94.9	966	13	95.6	1073	16	97.9	1158	18
	35	181.4	954	33	237.0	934	24	268.1	1057	28	300.5	948	20
		93.0	787	10	98.6	962	13	103.0	1064	15	101.4	1152	17
	37	176.4	927	32	231.3	912	23	262.2	1034	27	288.6	910	19
		96.7	783	10	102.4	957	13	107.1	1059	15	109.4	1141	17
	39	170.5	896	30	224.1	883	21	254.7	1004	26	282.0	889	18
		100.5	777	10	106.7	948	13	111.4	1049	15	113.9	1135	17
	41	164.3	864	28	217.9	859	20	248.1	978	25	274.7	866	17
		104.7	771	9	111.2	943	12	116.1	1044	15	118.8	1128	16

Notes) Above table is based on 5K, 4K, 3K temperature gap between chilled water inlet & outlet. (Fouling factor 0.000086m² °C/W(0.0001m²·h·°C/kcal))
You need to contact us in case that temperature gap chilled water or brine is difference from shown above.

※Legend
LCWT : Leaving Chilled Water Temperature (°C)
CCpa : Cooling Capacity (kW)
FR : Flow Rate (L/min)
PD : Pressure Drop (L/min)
PC : Power Consumptuon(kW)
CW : Cooling Water
CDW : Condensing Water
Eva : Evaporator
Con : Condenser

Water Cooled Type(R-22)

R-134a Type(50Hz)

↘ TWLD 200A~330A, TWLT 105A~120A

Model	LCWT	Brine In/ Outet Temperature (°C)											
		-12/-15°C			-6/-10°C			-3/-7°C			0/-5°C		
		CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD
		PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa
	°C	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.
		kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.
TWLD 200A	33	215.1	1130	32	279.2	1100	23	319.8	1260	27	352.9	1113	19
		100.9	906	7	107.1	1107	10	107.7	1225	12	110.2	1328	13
	35	209.7	1102	31	271.6	1070	22	307.5	1212	26	345.9	1091	19
		104.7	901	7	111.2	1097	10	116.1	1214	12	114.5	1320	13
	37	202.8	1066	29	265.6	1047	21	300.5	1185	25	338.2	1067	18
		109.0	894	7	115.5	1092	10	120.7	1208	11	119.2	1311	13
	39	195.7	1028	28	258.6	1019	20	293.7	1158	25	324.8	1024	17
		113.4	886	7	120.1	1086	10	125.6	1202	11	128.4	1299	13
	41	188.9	993	26	251.4	991	19	286.0	1127	24	316.5	998	16
		118.0	880	7	125.4	1080	9	130.8	1195	11	133.8	1291	12
TWLD 230A	33	251.0	1319	22	324.1	1277	15	373.2	1471	19	411.9	1299	13
		117.4	1056	8	124.4	1286	10	125.4	1429	12	128.2	1548	14
	35	244.7	1286	21	317.5	1251	15	358.9	1415	18	403.5	1272	12
		121.9	1051	8	129.1	1280	10	134.9	1415	12	133.3	1539	14
	37	236.6	1243	20	309.9	1221	14	351.3	1385	17	395.3	1246	12
		126.9	1042	8	134.3	1273	10	140.2	1409	12	138.3	1530	13
	39	229.9	1208	19	301.9	1190	13	342.7	1351	17	379.1	1195	11
		131.8	1037	7	140.0	1267	10	146.0	1401	12	149.5	1515	13
	41	220.6	1160	18	293.3	1156	13	333.8	1316	16	369.5	1165	11
		137.4	1026	7	145.8	1259	10	152.2	1393	11	155.7	1506	13
TWLD 260A	33	287.9	1513	41	372.9	1470	28	428.3	1688	35	473.1	1492	25
		130.5	1199	8	138.0	1465	11	139.4	1627	13	142.3	1764	15
	35	279.1	1467	39	364.9	1438	27	412.5	1626	34	463.5	1462	24
		135.5	1188	8	143.5	1457	11	149.7	1612	13	147.7	1752	15
	37	271.6	1427	37	354.6	1398	26	403.4	1590	32	451.6	1424	23
		140.9	1182	8	149.1	1444	11	155.7	1603	13	153.8	1735	14
	39	263.7	1386	35	345.6	1362	25	391.9	1545	31	433.4	1367	22
		146.6	1176	8	155.3	1436	11	162.1	1588	12	165.9	1718	14
	41	254.1	1335	34	336.1	1325	24	382.0	1506	29	423.2	1335	21
		152.6	1166	8	161.9	1428	10	168.9	1579	12	172.5	1708	14
TWLD 330A	33	361.3	1899	31	468.9	1848	22	538.7	2123	26	591.9	1866	19
		163.8	1505	10	173.4	1841	13	175.0	2046	15	178.8	2209	17
	35	350.2	1840	29	456.3	1798	21	515.7	2033	25	579.8	1828	18
		169.9	1491	9	180.0	1824	13	188.2	2018	15	185.8	2195	17
	37	341.2	1793	28	445.6	1756	20	504.9	1990	25	568.0	1791	17
		176.4	1484	9	187.2	1814	12	195.4	2007	15	192.9	2181	17
	39	331.0	1739	27	434.1	1711	19	492.6	1942	24	544.8	1718	16
		183.7	1476	9	195.0	1803	12	203.5	1996	14	208.3	2159	16
	41	318.1	1672	25	422.0	1664	18	479.8	1891	23	531.1	1675	15
		191.4	1461	9	203.3	1793	12	212.3	1984	14	217.1	2145	16
TWLT 105A	33	115.6	608	35	150.5	593	25	173.2	683	30	190.5	601	21
		56.5	493	9	59.8	603	12	60.4	670	15	61.6	723	16
	35	112.7	592	34	147.3	580	24	166.5	656	29	186.4	588	20
		58.5	491	9	62.1	600	12	65.0	664	14	64.2	718	16
	37	109.6	576	32	143.8	567	23	163.0	643	27	179.4	566	19
		60.8	488	9	64.7	598	12	67.4	660	14	68.9	712	16
	39	105.5	555	31	140.0	552	22	158.9	626	26	175.3	553	19
		63.4	484	9	67.4	594	12	70.3	657	14	71.8	708	16
	41	101.8	535	29	135.9	536	21	154.8	610	25	170.9	539	18
		66.0	481	9	70.3	591	12	73.2	654	14	75.0	705	16
TWLT 120A	33	127.4	670	32	165.6	653	23	190.7	752	27	209.6	661	19
		63.1	546	9	67.1	667	12	67.7	741	14	69.2	799	15
	35	124.3	653	31	162.1	639	22	183.4	723	26	205.5	648	18
		65.7	545	9	69.7	665	11	72.6	734	13	71.8	795	15
	37	120.8	635	29	158.0	623	21	179.3	707	25	197.3	622	18
		68.3	542	9	72.6	661	11	75.8	731	13	77.4	787	15
	39	116.2	611	28	154.0	607	20	175.0	690	25	192.9	608	17
		71.2	537	8	75.5	658	11	78.7	727	13	80.6	784	15
	41	111.9	588	26	149.9	591	19	170.3	671	23	188.2	593	16
		74.1	533	8	78.4	655	11	82.2	724	13	83.8	780	14

Notes) Above table is based on 5K, 4K, 3K temperature gap between chilled water inlet & outlet. (Fouling factor 0.000086m^2 °C/W(0.0001m^2·h·°C/kcal))
You need to contact us in case that temperature gap chilled water or brine is difference from shown above.

※Legend
LCWT : Leaving Chilled Water Temperature (°C)
CCpa : Cooling Capacity (kW)
FR : Flow Rate (L/min)
PD : Pressure Drop (L/min)
PC : Power Consumptuon(kW)
CW : Cooling Water
CDW : Condensing Water
Eva : Evaporator
Con : Condenser

Performance Data

R-134a Type(50Hz)

↘ TWLF 140A~TWLF 460A

Model	LCWT	Brine In/ Outet Temperature (°C)											
		-12/-15°C			-6/-10°C			-3/-7°C			0/-5°C		
		CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD
		PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa
	°C	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.
		kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.
TWLF 140A	33	151.5	796	27	196.0	772	19	222.4	877	24	247.8	781	16
		76.1	652	4	81.3	795	6	84.8	881	7	83.6	950	8
	35	147.2	774	25	191.7	756	18	217.3	857	23	238.0	750	16
		79.2	649	4	84.0	790	6	87.9	875	7	89.9	940	8
	37	142.2	747	25	187.0	737	17	211.1	832	22	232.5	733	15
		82.6	645	4	87.5	787	6	91.8	868	7	93.8	935	8
	39	137.2	721	24	182.0	717	17	205.7	811	21	227.1	716	14
		86.1	640	4	91.4	784	6	95.6	864	7	97.7	931	7
	41	131.8	693	23	176.5	696	16	201.4	794	20	221.2	697	13
		89.6	635	4	95.3	779	6	99.5	863	7	101.6	925	7
TWLF 160A	33	169.5	891	27	218.9	863	19	248.1	978	24	277.5	875	16
		85.7	732	6	91.0	888	8	95.3	984	9	93.8	1064	11
	35	164.9	867	26	214.2	844	18	242.6	956	23	271.6	856	16
		89.2	728	6	94.5	885	8	98.8	979	9	97.7	1059	11
	37	158.4	832	25	208.8	823	18	236.8	933	22	260.7	822	15
		92.6	720	6	98.4	881	8	103.0	974	9	105.5	1050	10
	39	153.0	804	24	203.3	802	17	231.3	912	21	254.8	803	14
		96.5	715	6	102.6	877	8	107.3	971	9	109.4	1044	10
	41	147.2	774	23	197.5	779	16	224.7	886	20	248.2	783	14
		100.7	711	6	106.9	873	8	111.6	964	9	114.1	1039	10
TWLF 400A	33	415.2	2182	26	540.0	2129	18	611.2	2409	23	684.3	2158	15
		202.6	1771	11	215.8	2167	15	225.5	2399	18	222.8	2600	20
	35	404.4	2125	25	528.8	2084	17	598.8	2360	22	669.8	2112	15
		210.7	1763	11	223.9	2158	15	234.1	2387	17	231.4	2583	20
	37	392.5	2063	24	515.5	2032	17	584.8	2305	21	643.6	2030	14
		219.1	1753	11	232.9	2146	14	243.8	2375	17	249.3	2560	19
	39	377.5	1984	23	501.9	1978	16	570.0	2247	20	628.0	1980	13
		228.3	1737	11	242.6	2134	14	253.9	2362	17	259.9	2545	19
	41	364.4	1915	22	487.2	1920	15	555.2	2188	19	611.6	1929	13
		237.6	1726	11	253.1	2122	14	264.4	2349	17	270.8	2530	19
TWLF 460A	33	472.8	2485	33	617.0	2432	24	695.6	2742	28	783.2	2470	20
		235.3	2030	12	250.8	2488	17	262.1	2745	20	258.7	2987	22
	35	460.1	2418	32	603.8	2380	23	681.2	2685	27	749.2	2362	19
		244.9	2021	12	260.1	2477	17	272.2	2733	19	278.6	2946	22
	37	446.7	2348	30	588.6	2320	22	664.8	2621	26	735.5	2319	18
		254.9	2011	12	270.6	2463	16	283.0	2717	19	290.4	2941	22
	39	429.8	2259	29	572.7	2257	21	648.1	2555	25	718.3	2265	18
		264.9	1991	12	281.9	2450	16	295.1	2704	19	302.1	2925	21
	41	413.2	2172	27	555.6	2190	20	630.2	2484	24	699.1	2205	17
		276.0	1976	12	293.9	2435	16	307.5	2688	19	315.0	2907	21

Notes) Above table is based on 5K, 4K, 3K temperature gap between chilled water inlet & outlet. (Fouling factor 0.000086m^2 °C/W(0.0001m^2·h·°C/kcal))
You need to contact us in case that temperature gap chilled water or brine is difference from shown above.

※Legend
LCWT : Leaving Chilled Water Temperature (°C)
PD : Pressure Drop (L/min)
CDW : Condensing Water
CCpa : Cooling Capacity (kW)
PC : Power Consumptuon(kW)
Eva : Evaporator
FR : Flow Rate (L/min)
CW : Cooling Water
Con : Condenser

Performance Data

R-407C Type(60Hz)

↘ GWRS 030A~GWRS 100A

Model	LCWT	Cooling Water Outet Temperature (°C)											
		5°C			7°C			9°C			11°C		
		CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD
		PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa
	°C	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.
		kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.
GWRS 030A	33	94.0	269	35	100.6	288	40	107.2	307	46	112.4	322	52
		25.5	343	27	26.0	363	30	26.5	383	33	28.5	404	36
	35	91.9	263	34	96.2	276	38	105.1	301	44	110.1	316	50
		26.5	339	26	27.0	353	29	27.6	380	32	29.6	400	36
	37	91.1	261	32	96.2	276	37	102.7	294	42	110.0	315	48
		26.7	338	26	28.1	356	28	28.7	377	31	29.3	399	35
	39	88.8	255	31	95.3	273	35	100.3	288	40	107.5	308	46
		27.8	334	25	28.3	354	28	29.8	373	31	30.4	395	34
	41	86.5	248	29	92.7	266	33	99.1	284	38	104.9	301	44
		29.0	331	25	29.5	350	27	30.1	370	30	31.6	391	33
GWRS 040A	33	127.2	365	52	136.3	391	61	142.5	409	69	151.7	435	78
		33.7	461	30	34.3	489	33	36.8	514	37	37.7	543	41
	35	124.5	357	50	130.2	373	58	142.5	409	66	148.7	426	75
		35.0	457	29	35.7	476	32	36.5	513	36	39.1	538	40
	37	123.4	354	48	130.3	374	55	139.4	400	63	148.8	427	73
		35.3	455	29	37.1	480	32	37.9	508	35	38.7	538	39
	39	120.3	345	46	129.0	370	53	136.0	390	61	145.2	416	69
		36.8	450	28	37.5	477	31	39.4	503	35	40.2	531	39
	41	117.0	335	44	125.9	361	50	132.6	380	58	141.6	406	66
		38.3	445	28	38.9	472	31	41.0	498	34	41.8	526	38
GWRS 050A	33	162.1	465	42	173.6	498	48	185.9	533	55	194.5	558	63
		41.7	584	49	42.7	620	54	43.6	658	63	46.9	692	67
	35	158.4	454	40	166.1	476	46	182.2	522	53	194.8	558	60
		43.4	578	48	44.3	603	53	45.3	652	59	46.3	691	66
	37	157.2	451	38	166.0	476	44	177.9	510	50	190.6	546	58
		43.8	576	47	46.2	608	52	47.1	645	58	48.1	684	64
	39	153.1	439	37	164.5	472	42	173.8	498	48	185.9	533	55
		45.6	570	46	46.5	605	51	48.9	638	57	50.0	676	63
	41	149.1	427	35	160.1	459	40	171.7	492	46	181.3	520	53
		47.4	563	45	48.3	597	50	49.4	634	56	52.0	669	62
GWRS 060A	33	185.6	532	48	199.1	571	56	208.9	599	63	223.3	640	72
		47.1	667	43	48.1	709	48	51.7	747	54	53.0	792	59
	35	181.4	520	46	190.2	545	58	208.9	599	61	218.9	628	70
		49.0	660	43	50.1	689	47	51.1	745	53	54.9	785	58
	37	180.1	516	45	190.4	546	56	204.4	586	58	218.1	625	67
		49.4	658	42	52.0	695	46	53.1	738	51	54.2	781	57
	39	175.4	503	43	185.9	533	52	199.7	572	56	212.8	610	64
		51.5	650	41	54.1	688	45	55.2	731	50	56.4	772	56
	41	170.9	490	41	184.0	527	46	194.5	558	53	207.7	595	61
		53.5	643	40	54.6	684	44	57.4	722	49	58.6	763	55
GWRS 080A	33	241.5	692	41	258.8	742	48	276.7	793	54	288.8	828	62
		62.6	872	22	63.8	925	25	65.1	980	27	69.9	1028	31
	35	236.4	678	40	247.2	709	50	270.7	776	52	288.8	828	60
		65.1	864	22	66.4	899	25	67.7	970	27	69.2	1026	30
	37	234.1	671	38	247.4	709	49	264.8	759	50	282.6	810	57
		65.7	859	21	69.0	907	25	70.4	961	26	71.8	1016	29
	39	228.3	654	36	244.7	701	42	258.6	741	48	276.1	791	55
		68.3	850	21	69.6	901	23	73.1	951	26	74.6	1005	29
	41	222.0	636	35	238.9	685	40	255.5	732	45	268.9	771	52
		71.2	841	20	72.4	892	24	73.7	944	25	77.6	993	28
GWRS 100A	33	310.8	891	35	332.6	953	40	355.2	1018	45	371.7	1066	52
		76.6	1111	16	78.2	1178	18	79.6	1246	21	85.7	1311	23
	35	304.1	872	33	318.1	912	42	347.5	996	43	372.2	1067	50
		79.6	1100	16	81.2	1145	18	82.9	1234	20	84.7	1310	23
	37	301.3	864	32	317.9	911	40	339.9	974	41	364.2	1044	48
		80.4	1094	15	84.6	1154	18	86.1	1221	20	87.9	1296	22
	39	293.9	843	30	315.0	903	35	331.4	950	40	355.3	1019	45
		83.6	1082	15	85.2	1147	17	89.6	1207	20	91.4	1281	22
	41	285.6	819	29	306.6	879	33	328.0	940	38	346.5	993	43
		87.1	1068	15	88.5	1133	17	90.2	1199	19	95.0	1266	21

Notes) Above table is based on 5K temperature gap between chilled water inlet & outlet. (Fouling factor 0.000086m^2 °C/W(0.0001m^2·h·°C/kcal))
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※Legend
LCWT : Leaving Chilled Water Temperature (°C)
CCpa : Cooling Capacity (kW)
FR : Flow Rate (L/min)
PD : Pressure Drop (L/min)
PC : Power Consumptuon(kW)
CW : Cooling Water
CDW : Condensing Water
Eva : Evaporator
Con : Condenser

Performance Data

R-407C Type(50Hz)

↘ GWRS 125A~GWRS 250A

Model	LCWT	Cooling Water Outet Temperature (°C)											
		5°C			7°C			9°C			11°C		
		CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD
		PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa
	°C	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.
		kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.
GWRS 125A	33	389.0	1115	42	416.3	1193	49	444.4	1274	55	463.8	1330	63
		98.1	1396	28	100.1	1480	31	102.2	1567	34	109.7	1644	38
	35	380.2	1090	40	398.0	1141	51	435.2	1248	53	463.7	1329	61
		102.2	1383	27	104.0	1439	30	106.1	1552	34	108.5	1640	38
	37	376.9	1080	39	397.7	1140	49	425.0	1218	51	453.6	1300	58
		103.0	1376	27	108.3	1451	30	110.5	1535	33	112.7	1623	37
	39	367.5	1054	37	394.0	1129	42	414.9	1189	48	443.0	1270	55
		107.1	1361	26	109.1	1442	29	114.8	1518	32	117.0	1605	36
	41	357.3	1024	35	383.1	1098	40	409.8	1175	46	431.2	1236	53
		111.6	1344	26	113.6	1424	28	115.8	1507	32	121.8	1585	35
GWRS 150A	33	481.2	1379	46	516.2	1480	53	541.2	1551	61	578.9	1660	69
		113.7	1705	34	116.2	1813	38	124.8	1909	42	127.7	2026	47
	35	471.1	1350	44	493.9	1416	56	542.0	1554	58	567.5	1627	66
		118.2	1689	33	120.6	1762	37	123.3	1907	41	132.5	2007	46
	37	459.8	1318	43	494.1	1416	54	530.4	1520	56	567.0	1625	64
		123.1	1671	33	125.3	1776	36	128.0	1887	40	131.0	2001	45
	39	455.4	1305	41	481.9	1381	47	517.5	1484	53	554.1	1588	61
		123.9	1661	32	130.5	1756	36	133.2	1865	39	136.0	1978	44
	41	442.8	1269	39	475.8	1364	44	504.8	1447	51	540.8	1550	58
		129.1	1639	31	131.3	1740	35	138.3	1844	38	141.2	1955	43
GWRS 175A	33	561.9	1611	33	602.8	1728	37	633.0	1815	43	677.1	1941	49
		133.2	1993	33	136.1	2118	37	146.3	2234	41	149.7	2370	45
	35	549.4	1575	31	576.0	1651	40	630.7	1808	41	663.0	1901	47
		138.7	1973	32	141.6	2057	36	144.6	2223	40	155.5	2346	44
	37	537.0	1539	30	576.6	1653	38	617.2	1769	39	660.7	1894	45
		144.1	1952	31	147.1	2075	35	150.1	2200	39	153.4	2334	43
	39	531.1	1522	29	562.8	1613	33	603.1	1729	37	645.8	1851	43
		145.4	1939	31	152.8	2051	34	155.9	2176	38	159.2	2308	42
	41	517.2	1483	27	555.8	1593	31	587.3	1684	36	629.3	1804	41
		151.2	1916	30	154.1	2035	33	162.3	2149	37	165.6	2279	41
GWRS 200A	33	630.9	1809	33	672.3	1927	37	709.7	2034	43	759.9	2178	49
		147.4	2231	35	152.0	2363	39	161.9	2499	43	165.4	2653	48
	35	616.9	1768	31	647.3	1856	40	695.8	1995	41	744.4	2134	47
		153.4	2208	34	156.3	2304	38	167.9	2476	42	171.8	2626	47
	37	603.2	1729	30	647.3	1856	38	693.5	1988	39	726.4	2082	45
		159.4	2186	33	162.7	2322	37	165.8	2463	41	178.0	2593	46
	39	596.6	1710	29	632.2	1812	33	677.0	1941	37	724.9	2078	43
		160.9	2172	33	169.0	2297	36	172.5	2435	40	176.2	2583	45
	41	581.3	1666	27	624.3	1790	31	660.6	1894	36	707.7	2029	41
		167.2	2146	32	170.5	2278	35	179.2	2407	39	182.9	2553	44
GWRS 250A	33	804.0	2305	47	862.1	2471	54	904.8	2594	62	967.8	2774	71
		188.4	2845	41	192.4	3023	46	206.8	3187	51	211.7	3381	57
	35	786.9	2256	45	824.7	2364	57	902.8	2588	60	945.3	2710	68
		195.7	2817	40	199.8	2937	45	204.0	3173	50	219.3	3339	56
	37	768.1	2202	44	825.5	2366	55	883.6	2533	57	944.5	2708	65
		203.8	2786	40	207.5	2961	44	211.8	3140	49	216.9	3329	55
	39	760.6	2180	42	804.7	2307	48	862.2	2472	54	923.2	2647	62
		205.2	2769	39	216.0	2926	43	220.4	3103	48	225.1	3292	53
	41	739.6	2120	40	795.9	2282	45	841.0	2411	52	901.0	2583	59
		213.8	2733	38	217.5	2905	42	229.0	3067	47	233.7	3253	52

Notes) Above table is based on 5K temperature gap between chilled water inlet & outlet. (Fouling factor 0.000086m^2 °C/W(0.0001m^2·h·°C/kcal))
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※Legend
LCWT : Leaving Chilled Water Temperature (°C) CCpa : Cooling Capacity (kW) FR : Flow Rate (L/min)
PD : Pressure Drop (L/min) PC : Power Consumptuon(kW) CW : Cooling Water
CDW : Condensing Water Eva : Evaporator Con : Condenser

Performance Data

R-407C Type(60Hz)

↘ GWRD 080A~GWRD 250A

Model	LCWT	Cooling Water Outet Temperature (°C)											
		5°C			7°C			9°C			11°C		
		CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD
		PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa
	°C	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.
		kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.
GWRD 080A	33	248.2	712	45	265.6	761	52	283.6	813	59	296.0	849	68
		67.4	905	25	68.8	959	28	70.2	1014	31	75.4	1065	34
	35	242.6	695	43	254.0	728	55	277.8	796	57	296.4	850	65
		70.2	897	25	71.4	933	27	72.8	1005	30	74.4	1063	33
	37	240.6	690	41	253.8	728	52	271.2	777	54	289.6	830	62
		70.8	893	24	74.4	941	26	75.8	995	29	77.4	1052	33
	39	234.4	672	40	251.4	721	46	264.8	759	52	282.8	811	60
		73.6	883	23	75.0	936	26	78.8	985	29	80.4	1041	32
	41	228.2	654	38	244.6	701	43	262.0	751	50	275.8	791	57
		76.6	874	23	78.0	925	25	79.4	979	28	83.4	1030	31
GWRD 100A	33	320.4	918	37	342.8	983	43	366.2	1050	49	382.4	1096	56
		83.4	1158	19	85.2	1227	20	86.8	1299	23	93.2	1363	25
	35	313.2	898	36	327.3	938	45	358.2	1027	47	382.4	1096	54
		87.0	1147	18	88.6	1192	21	90.4	1286	23	92.2	1361	25
	37	310.6	890	34	327.6	939	43	350.4	1004	45	374.0	1072	52
		87.6	1142	17	92.0	1203	20	94.0	1274	22	95.8	1347	25
	39	302.4	867	33	324.2	929	38	342.0	980	43	365.4	1047	49
		91.2	1128	17	93.0	1196	19	97.6	1260	22	99.6	1333	24
	41	294.6	845	31	315.8	905	36	338.0	969	41	355.6	1019	47
		94.8	1116	17	96.6	1182	19	98.4	1251	22	103.6	1316	24
GWRD 120A	33	368.6	1057	38	395.0	1132	43	412.6	1183	50	441.6	1266	57
		94.6	1328	26	96.2	1408	29	103.2	1479	32	105.6	1569	35
	35	360.8	1034	36	377.5	1082	45	412.6	1183	47	432.2	1239	54
		98.2	1316	25	100.2	1369	28	102.2	1476	31	109.8	1554	35
	37	357.4	1025	35	377.8	1083	44	403.6	1157	45	421.0	1207	52
		99.2	1309	25	104.2	1382	27	106.2	1461	31	107.8	1516	34
	39	348.8	1000	33	373.8	1072	38	393.6	1128	43	422.4	1211	50
		103.0	1295	24	105.0	1373	27	110.6	1445	30	112.6	1534	33
	41	339.0	972	31	364.4	1045	36	383.8	1100	41	411.4	1179	47
		107.4	1280	24	109.2	1358	26	114.8	1429	29	117.2	1515	33
GWRD 160A	33	501.8	1438	49	538.0	1542	57	564.0	1617	65	602.6	1727	74
		126.2	1800	34	128.8	1911	38	138.4	2014	42	142.0	2135	47
	35	490.2	1405	47	514.7	1475	59	564.0	1617	62	590.6	1693	71
		131.4	1782	34	133.8	1859	37	137.0	2010	42	147.2	2115	46
	37	486.4	1394	45	514.4	1475	57	551.8	1582	59	590.8	1694	68
		132.2	1773	33	139.4	1874	37	142.2	1989	41	145.4	2110	45
	39	474.0	1359	43	502.0	1439	50	539.0	1545	57	576.4	1652	65
		137.8	1754	32	144.8	1854	36	147.8	1969	40	153.0	2091	44
	41	461.4	1323	41	496.6	1424	47	525.0	1505	54	562.4	1612	62
		143.2	1733	32	146.0	1842	35	153.8	1946	39	157.0	2062	43
GWRD 200A	33	652.2	1870	34	699.6	2006	39	733.8	2104	44	784.8	2250	51
		152.4	2307	37	155.6	2452	41	167.0	2582	46	170.8	2739	51
	35	638.0	1829	33	669.4	1919	41	734.2	2105	43	768.8	2204	49
		158.6	2284	36	161.6	2382	40	165.2	2578	45	177.4	2712	50
	37	623.8	1788	31	669.4	1919	40	719.0	2061	41	753.0	2159	47
		164.8	2261	36	168.2	2401	39	171.4	2552	44	184.2	2687	49
	39	617.0	1769	30	653.8	1874	34	701.8	2012	39	751.4	2154	45
		166.2	2245	35	174.8	2375	39	178.4	2523	43	182.2	2676	48
	41	601.2	1723	28	647.2	1855	32	684.8	1963	37	733.6	2103	43
		172.8	2219	34	176.4	2361	38	185.2	2494	42	189.2	2645	47
GWRD 250A	33	804.6	2307	47	862.6	2473	54	904.4	2593	62	967.6	2774	70
		194.6	2864	42	198.6	3042	47	213.4	3204	52	218.4	3400	58
	35	786.8	2255	45	824.4	2363	57	904.6	2593	59	947.4	2716	68
		202.6	2836	41	206.8	2956	46	211.2	3199	51	227.0	3367	57
	37	769.0	2204	43	825.2	2366	54	896.6	2570	57	947.8	2717	65
		210.6	2808	41	214.8	2981	45	220.8	3203	50	224.0	3359	56
	39	760.6	2180	41	804.8	2307	47	865.0	2480	54	925.2	2652	62
		212.4	2789	40	223.6	2948	44	227.8	3133	49	233.0	3320	55
	41	741.0	2124	39	797.0	2285	45	842.6	2415	52	902.8	2588	59
		221.0	2758	39	225.2	2930	43	237.0	3095	48	242.0	3282	53

Notes) Above table is based on 5K temperature gap between chilled water inlet & outlet. (Fouling factor 0.000086m^2 °C/W(0.0001m^2·h·°C/kcal))
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LCWT : Leaving Chilled Water Temperature (°C)
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PC : Power Consumptuon(kW)
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CDW : Condensing Water
Eva : Evaporator
Con : Condenser

Performance Data

R-407C Type(60Hz)

↘ GWRD 300A~500A, GWRT 150A~180A

Model	LCWT	Cooling Water Outet Temperature (°C)											
		5°C			7°C			9°C			11°C		
		CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD
		PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa
	°C	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.
		kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.
GWRD 300A	33	962.4	2759	43	1032.4	2960	49	1082.4	3103	56	1157.8	3319	64
		227.4	3411	31	232.4	3626	35	249.6	3818	39	255.4	4051	43
	35	942.2	2701	41	987.7	2831	52	1084.0	3107	54	1135.0	3254	62
		236.4	3379	31	241.2	3523	34	246.6	3814	38	265.0	4013	42
	37	919.6	2636	40	988.2	2833	50	1060.8	3041	52	1134.0	3251	59
		246.2	3342	30	250.6	3551	33	256.0	3775	37	262.0	4002	41
	39	910.8	2611	38	963.8	2763	43	1035.0	2967	50	1108.2	3177	57
		247.8	3321	30	261.0	3511	33	266.4	3731	36	272.0	3957	40
	41	885.6	2539	36	951.6	2728	41	1009.6	2894	47	1081.6	3101	54
		258.2	3279	29	262.6	3481	32	276.6	3687	36	282.4	3910	40
GWRD 350A	33	1123.8	3222	29	1205.6	3456	33	1266.0	3629	37	1354.2	3882	42
		266.4	3985	33	272.2	4236	37	292.6	4468	41	299.4	4740	45
	35	1098.8	3150	27	1152.1	3303	34	1261.4	3616	36	1326.0	3801	41
		277.4	3945	32	283.2	4115	36	289.2	4445	40	311.0	4693	44
	37	1074.0	3079	26	1152.6	3304	33	1234.4	3539	34	1321.4	3788	39
		288.2	3905	31	294.2	4147	35	300.2	4399	39	306.8	4668	43
	39	1062.2	3045	25	1125.6	3227	29	1206.2	3458	33	1291.6	3703	37
		290.8	3879	31	305.6	4103	24	311.8	4352	38	318.4	4615	42
	41	1034.4	2965	24	1111.6	3187	27	1174.6	3367	61	1258.6	3608	36
		302.4	3832	30	308.2	4070	33	324.6	4298	40	331.2	4557	41
GWRD 400A	33	1278.0	3664	55	1342.2	3848	64	1435.4	4115	73	1535.0	4400	82
		296.2	4513	35	317.4	4758	40	324.6	5045	44	332.4	5353	49
	35	1251.2	3587	53	1310.9	3758	67	1405.8	4030	70	1505.6	4316	79
		307.6	4469	35	314.2	4659	39	337.4	4997	43	344.6	5304	48
	37	1221.6	3502	51	1312.2	3762	64	1406.4	4032	67	1472.8	4222	75
		320.4	4420	34	326.2	4697	38	333.2	4987	42	358.0	5248	47
	39	1210.2	3469	49	1280.0	3669	56	1375.0	3942	64	1471.8	4219	73
		322.6	4394	33	339.6	4643	37	346.0	4934	41	353.6	5233	46
	41	1177.4	3375	46	1268.6	3637	53	1340.0	3841	61	1435.0	4114	70
		336.0	4338	33	342.0	4617	36	360.2	4874	40	367.6	5167	45
GWRD 500A	33	1608.0	4610	42	1724.2	4943	48	1809.6	5188	54	1935.6	5549	62
		376.8	5690	41	384.8	6046	46	413.6	6373	51	423.4	6762	57
	35	1573.8	4512	40	1688.2	4840	51	1805.6	5176	52	1890.6	5420	60
		391.4	5634	40	399.6	5985	45	408.0	6346	50	438.6	6677	56
	37	1536.2	4404	38	1651.0	4733	49	1767.2	5066	50	1889.0	5415	57
		407.6	5572	40	415.0	5923	44	423.6	6280	49	433.8	6659	55
	39	1521.2	4361	36	1609.4	4614	42	1724.4	4943	48	1846.4	5293	55
		410.4	5537	39	432.0	5852	43	440.8	6207	48	450.2	6584	53
	41	1479.2	4240	35	1591.8	4563	40	1682.0	4822	46	1802.0	5166	52
		427.6	5466	38	435.0	5810	42	458.0	6135	47	467.4	6506	52
GWRT 150A	33	501.3	1437	47	537.6	1541	54	564.0	1617	62	603.3	1729	71
		124.8	1795	39	127.5	1907	44	137.1	2010	48	140.1	2131	54
	35	490.2	1405	45	526.8	1510	57	564.9	1619	60	591.6	1696	68
		129.9	1778	38	132.3	1889	43	135.3	2007	47	145.2	2112	53
	37	479.1	1373	44	514.5	1475	55	552.3	1583	57	591.3	1695	65
		135.0	1760	38	137.7	1870	42	140.7	1987	47	143.7	2107	52
	39	474.3	1360	42	502.5	1441	48	539.7	1547	55	578.1	1657	62
		136.2	1750	37	143.1	1851	41	146.1	1966	46	149.1	2085	51
	41	462.0	1324	40	497.4	1426	45	525.6	1507	47	563.4	1615	60
		141.6	1730	36	144.6	1840	40	152.1	1943	45	155.4	2061	50
GWRT 180A	33	565.2	1620	43	606.9	1740	49	636.9	1826	56	681.3	1953	64
		140.7	2024	36	143.7	2152	41	154.2	2268	45	157.8	2405	50
	35	553.2	1586	41	594.0	1703	52	637.2	1827	54	667.5	1914	62
		146.4	2006	36	149.1	2130	40	152.7	2264	44	164.1	2384	49
	37	540.6	1550	40	580.8	1665	50	624.0	1789	52	667.8	1914	59
		152.4	1987	35	155.1	2110	39	158.4	2243	43	162.0	2379	48
	39	535.5	1535	38	566.7	1625	43	609.0	1746	50	653.1	1872	57
		153.3	1975	34	161.4	2087	38	165.0	2219	42	168.0	2354	47
	41	521.1	1494	36	558.9	1602	41	594.0	1703	47	636.6	1825	54
		159.9	1952	34	162.9	2069	37	171.3	2194	41	174.9	2326	46

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Performance Data

R-407C Type(60Hz)

↘ GWRF 200A~GWRF 700A

Model	LCWT	Cooling Water Outet Temperature (°C)											
		5°C			7°C			9°C			11°C		
		CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD
		PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa
	°C	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.
		kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.
GWRF 200A	33	640.8	1837	37	685.6	1965	43	732.4	2100	49	764.8	2192	56
		166.8	2315	19	170.4	2454	20	173.6	2597	23	186.4	2727	25
	35	626.4	1796	36	670.0	1921	45	716.4	2054	47	764.8	2192	54
		174.0	2294	18	177.2	2429	21	180.8	2572	23	184.4	2721	25
	37	621.2	1781	34	655.2	1878	43	700.8	2009	45	748.0	2144	52
		175.2	2283	17	184.0	2406	20	188.0	2548	22	191.6	2694	25
	39	604.8	1734	33	651.2	1867	38	684.0	1961	43	730.8	2095	49
		182.4	2257	17	184.8	2397	19	195.2	2520	22	199.2	2666	24
	41	589.2	1689	31	631.6	1811	36	676.0	1938	41	711.2	2039	47
		189.6	2233	18	193.2	2364	19	196.8	2502	22	207.2	2633	24
GWRF 240A	33	737.2	2113	38	790.0	2265	43	825.2	2366	50	883.2	2532	57
		189.2	2656	26	192.4	2816	29	206.4	2957	32	211.2	3137	35
	35	721.6	2069	36	772.0	2213	45	825.2	2366	47	864.4	2478	54
		196.4	2632	25	200.4	2788	28	204.4	2952	31	219.6	3107	35
	37	714.8	2049	35	755.6	2166	44	807.2	2314	45	864.4	2478	52
		198.4	2618	25	208.4	2763	27	212.4	2923	31	216.8	3099	34
	39	697.6	2000	32	747.6	2143	38	787.2	2257	43	844.8	2422	50
		206.0	2590	24	210.0	2745	27	221.2	2891	30	225.2	3067	33
	41	661.2	1895	31	728.8	2089	36	767.6	2200	41	822.8	2359	47
		214.4	2510	17	218.4	2715	26	229.6	2859	29	234.4	3031	33
GWRF 600A	33	1878.8	5386	35	2014.8	5776	40	2110.8	6051	46	2258.8	6475	53
		451.6	6680	48	461.2	7098	54	495.2	7471	60	506.8	7928	67
	35	1838.8	5271	34	1972.8	5655	43	2113.6	6059	44	2211.6	6340	51
		469.6	6617	47	479.2	7029	53	489.2	7461	59	526.4	7849	66
	37	1821.6	5222	32	1926.8	5523	41	2065.2	5920	42	2211.6	6340	48
		473.6	6580	47	498.8	6953	52	509.2	7380	58	520.0	7831	64
	39	1777.6	5096	31	1909.2	5473	35	2017.6	5784	40	2161.6	6197	46
		492.4	6507	46	502.0	6912	51	528.8	7300	56	540.0	7745	63
	41	1728.8	4956	29	1858.0	5326	34	1964.4	5631	39	2105.6	6036	44
		513.2	6427	45	522.8	6825	50	550.4	7209	55	561.6	7646	61
GWRF 700A	33	2144.4	6147	46	2300.0	6593	53	2466.0	7069	69	2570.8	7370	69
		530.4	7668	55	541.2	8145	61	552.8	8654	63	594.8	9075	75
	35	2099.2	6018	44	2251.2	6453	56	2416.0	6926	58	2574.0	7379	66
		551.2	7598	54	562.4	8066	60	574.0	8571	67	587.2	9062	74
	37	2079.6	5962	42	2198.0	6301	54	2359.6	6764	56	2518.4	7219	64
		556.4	7557	53	585.6	7980	59	597.6	8477	65	609.6	8967	75
	39	2028.4	5815	41	2178.8	6246	47	2304.4	6606	53	2456.4	7042	61
		578.4	7473	52	589.6	7936	58	620.8	8386	64	634.4	8860	71
	41	1972.4	5654	39	2123.2	6087	44	2276.8	6527	51	2395.6	6867	58
		602.8	7382	51	613.2	7844	56	626.4	8323	63	658.8	8756	70

Notes) Above table is based on 5K temperature gap between chilled water inlet & outlet. (Fouling factor 0.000086m² °C/W(0.0001m²·h·°C/kcal))
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※Legend
LCWT : Leaving Chilled Water Temperature (°C)
PD : Pressure Drop (L/min)
CDW : Condensing Water
CCpa : Cooling Capacity (kW)
PC : Power Consumptuon(kW)
Eva : Evaporator
FR : Flow Rate (L/min)
CW : Cooling Water
Con : Condenser

Performance Data

R-407C Type(60Hz)

↘ GWLS 030A~GWLS 100A

Model	LCWT	Brine In/ Outet Temperature (°C)								
		-6/-9°C			-3/-7°C			0/-5°C		
		CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD
		PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa
	°C	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.
		kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.
GWLS 030A	33	53.1	279	48	56.9	224	31	62.1	196	22
		21.8	215	12	22.8	228	14	23.2	245	15
	35	51.6	271	46	55.3	218	29	60.4	190	21
		22.8	213	12	23.8	227	14	24.2	243	15
	37	48.5	255	44	53.4	210	28	58.7	185	20
		24.8	210	12	24.8	224	13	25.2	241	15
	39	46.5	244	41	50.4	199	27	56.6	178	19
		25.8	207	12	26.8	221	13	26.3	238	15
	41	44.6	234	39	48.5	191	25	54.6	172	18
		26.9	205	12	27.9	219	13	27.4	235	15
GWLS 040A	33	71.8	377	72	76.8	303	47	84.2	266	32
		28.8	288	14	30.1	306	15	30.6	329	17
	35	69.6	366	69	75.0	296	45	82.0	259	30
		30.0	286	14	31.4	305	15	31.9	327	17
	37	65.5	344	66	72.8	287	43	79.6	251	29
		32.7	282	13	32.7	302	15	33.3	324	17
	39	63.1	332	62	70.0	276	41	77.2	243	27
		34.0	278	13	34.0	298	15	34.7	321	17
	41	60.5	318	59	65.9	260	38	74.1	234	26
		35.4	275	13	36.8	294	15	36.1	316	16
GWLS 050A	33	90.2	474	57	96.6	381	37	105.8	334	25
		35.5	360	22	37.1	383	25	37.8	412	27
	35	87.4	459	55	93.7	369	35	102.9	324	25
		37.0	357	22	38.6	379	24	39.5	408	26
	37	82.2	432	52	90.8	358	34	100.5	317	24
		40.3	351	22	40.3	376	24	41.1	406	26
	39	79.0	415	50	85.5	337	32	97.3	307	23
		42.0	347	21	43.6	370	24	42.9	402	26
	41	75.6	397	47	82.7	326	31	93.4	295	22
		43.7	342	21	45.4	367	24	44.7	396	25
GWLS 060A	33	103.3	543	67	110.6	436	43	121.8	384	29
		40.1	411	20	41.9	437	22	42.7	472	25
	35	100.2	527	64	107.5	424	41	118.5	374	28
		41.8	407	20	43.7	433	22	44.6	468	24
	37	94.3	496	61	104.6	412	39	115.0	363	27
		45.5	401	19	45.6	431	21	46.5	463	24
	39	90.9	478	58	100.9	398	37	111.7	352	25
		47.4	396	19	47.5	425	21	48.4	459	24
	41	78.4	412	55	95.0	374	36	107.3	338	25
		49.4	366	19	51.3	419	21	50.4	452	23
GWLS 080A	33	136.3	716	57	146.0	575	37	159.5	503	25
		53.6	544	10	56.0	579	11	57.0	621	13
	35	132.2	695	54	141.9	559	35	155.1	489	25
		55.9	539	10	58.4	574	11	59.5	615	13
	37	124.4	654	52	137.7	543	33	151.5	478	23
		60.9	531	10	60.8	569	11	62.0	612	12
	39	119.8	630	49	129.6	511	32	146.7	463	22
		63.3	525	10	65.7	560	11	64.6	606	12
	41	114.6	602	47	124.5	491	30	140.7	444	21
		66.0	518	10	68.5	553	11	67.3	596	12
GWLS 100A	33	175.7	923	47	188.2	742	30	205.5	648	21
		65.6	692	7	68.6	736	8	69.8	789	9
	35	170.4	896	45	182.8	721	29	199.9	630	21
		68.5	685	7	71.5	729	8	72.8	782	9
	37	161.1	847	43	177.4	699	28	194.4	613	20
		74.5	675	7	74.4	722	8	75.8	775	9
	39	154.7	813	41	167.3	659	26	188.1	593	19
		77.5	666	7	80.5	710	8	79.0	766	9
	41	148.2	779	39	160.7	633	25	181.6	573	18
		80.8	656	7	83.9	701	8	82.4	757	9

Notes) Above table is based on 5K, 4K, 3K temperature gap between chilled water inlet & outlet. (Fouling factor 0.000086m^2 °C/W(0.0001m^2·h·°C/kcal))
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LCWT : Leaving Chilled Water Temperature (°C)
CCpa : Cooling Capacity (kW)
FR : Flow Rate (L/min)
PD : Pressure Drop (L/min)
PC : Power Consumptuon(kW)
CW : Cooling Water
CDW : Condensing Water
Eva : Evaporator
Con : Condenser

Performance Data

R-407C Type(60Hz)

↘ GWLS 125A~GWLS 250A

Model	LCWT	Brine In/ Outet Temperature (°C)								
		-6/-9°C			-3/-7°C			0/-5°C		
		CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD
		PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa
	°C	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.
		kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.
GWLS 125A	33	219.3	1153	58	235.0	926	37	257.7	813	25
		83.9	869	13	85.1	918	14	87.2	989	16
	35	212.6	1117	55	228.2	900	36	250.7	791	25
		87.5	860	12	88.8	909	14	91.0	979	16
	37	200.1	1052	53	221.0	871	34	243.3	767	24
		95.2	847	12	92.8	900	14	94.9	969	15
	39	192.8	1013	50	208.7	823	32	235.8	744	23
		99.0	836	12	99.9	885	13	98.7	959	15
	41	184.5	970	53	201.3	793	31	226.6	714	22
		103.2	825	14	104.2	876	13	102.9	944	15
GWLS 150A	33	267.5	1406	64	289.0	1139	42	316.5	998	28
		96.8	1044	15	98.4	1110	17	100.7	1196	19
	35	259.7	1365	61	279.6	1102	40	308.2	972	27
		100.9	1034	15	102.5	1096	17	105.1	1185	19
	37	245.8	1292	59	271.2	1069	38	299.4	944	26
		109.9	1020	15	106.9	1084	17	109.6	1172	19
	39	236.4	1242	56	262.7	1036	36	290.7	917	25
		114.3	1005	15	111.3	1072	16	114.0	1160	18
	41	226.8	1192	53	247.0	974	34	280.8	885	24
		119.1	992	14	120.2	1053	16	118.9	1146	18
GWLS 175A	33	312.5	1642	45	336.0	1324	29	369.8	1166	21
		113.6	1221	15	115.4	1294	17	118.3	1399	19
	35	303.3	1594	43	326.7	1288	28	360.0	1135	20
		118.5	1209	15	120.3	1281	16	123.4	1386	19
	37	287.7	1512	41	317.4	1251	27	350.4	1105	19
		128.7	1194	14	125.3	1269	16	128.4	1372	18
	39	276.2	1452	39	306.9	1210	25	339.5	1071	18
		134.2	1176	14	130.6	1254	16	133.8	1357	18
	41	264.9	1392	37	288.4	1137	25	328.1	1035	17
		139.8	1160	14	141.2	1232	16	139.5	1340	18
GWLS 200A	33	352.2	1851	45	378.5	1492	29	414.5	1307	21
		126.0	1371	16	128.0	1452	17	131.1	1564	20
	35	342.1	1798	43	368.2	1451	28	403.8	1273	20
		131.4	1357	15	133.5	1438	17	136.7	1549	19
	37	331.3	1741	41	357.9	1411	27	393.1	1240	19
		137.0	1342	15	138.9	1424	17	142.3	1535	19
	39	311.5	1637	39	346.4	1365	25	381.1	1202	18
		149.1	1320	15	144.8	1408	17	148.3	1518	19
	41	299.6	1575	37	326.0	1285	25	368.5	1162	17
		155.1	1303	15	156.6	1383	16	154.7	1500	18
GWLS 250A	33	447.9	2354	66	481.4	1898	42	529.7	1670	29
		160.3	1744	18	162.8	1847	21	166.9	1997	23
	35	434.8	2285	63	468.1	1845	41	515.9	1627	27
		167.2	1726	18	169.8	1829	20	174.1	1978	23
	37	421.8	2217	60	454.9	1793	39	501.2	1580	26
		174.0	1708	18	176.8	1811	20	181.5	1957	23
	39	396.3	2083	57	440.0	1734	37	486.6	1535	25
		189.4	1679	18	184.3	1790	20	188.9	1936	22
	41	380.3	1999	54	414.0	1632	35	470.3	1483	25
		197.3	1656	17	199.3	1758	19	196.9	1913	22

Notes) Above table is based on 5K, 4K, 3K temperature gap between chilled water inlet & outlet. (Fouling factor 0.000086m^2 °C/W(0.0001m^2·h·°C/kcal))
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CCpa : Cooling Capacity (kW)
PC : Power Consumptuon(kW)
Eva : Evaporator
FR : Flow Rate (L/min)
CW : Cooling Water
Con : Condenser

Performance Data

R-407C Type(60Hz)

↘ GWLD 080A~GWLD 250A

Model	LCWT	Brine In/ Outet Temperature (°C)								
		-6/-9°C			-3/-7°C			0/-5°C		
		CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD
		PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa
	°C	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.
		kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.
GWLD 080A	33	139.5	733	61	149.4	589	40	164.1	517	27
		58.0	566	11	60.6	602	13	61.8	648	14
	35	135.1	710	59	145.2	572	38	159.4	503	26
		60.6	561	11	63.2	597	12	64.6	642	14
	37	126.7	666	57	140.1	552	36	154.7	488	25
		66.0	552	11	65.8	590	12	67.2	636	14
	39	121.8	640	53	132.1	521	34	149.2	470	24
		68.6	546	11	71.2	583	12	70.0	628	14
	41	116.6	613	50	126.7	499	32	140.4	443	23
		71.4	539	11	74.2	576	12	75.6	619	13
GWLD 100A	33	180.2	947	51	193.0	761	33	210.8	665	23
		72.0	723	8	75.2	769	9	76.6	824	11
	35	174.5	917	49	187.4	739	31	205.1	647	22
		75.0	715	8	78.4	762	9	79.8	817	10
	37	164.0	862	46	181.3	715	30	198.9	627	21
		81.6	704	8	81.8	754	9	83.2	809	10
	39	157.4	827	44	170.8	673	28	193.2	609	20
		85.0	695	8	88.2	742	9	86.8	803	10
	41	151.0	794	42	163.8	646	27	181.9	574	19
		88.4	686	8	91.8	733	9	93.6	790	10
GWLD 120A	33	207.0	1088	51	222.0	875	33	243.0	766	23
		81.6	827	12	85.0	880	13	86.8	945	15
	35	201.2	1057	49	215.7	850	32	236.8	747	22
		85.0	820	11	88.6	872	13	90.4	938	14
	37	189.1	994	47	208.9	823	30	229.9	725	21
		92.4	807	11	92.4	864	13	94.2	929	14
	39	181.9	956	44	196.7	775	29	222.5	702	20
		96.4	798	11	100.0	851	12	98.2	919	14
	41	174.1	915	42	189.3	746	27	213.9	674	19
		100.4	787	11	104.0	841	12	102.2	906	14
GWLD 160A	33	278.3	1463	68	299.3	1180	44	327.4	1032	30
		108.2	1108	16	113.0	1182	18	115.4	1269	20
	35	270.0	1419	65	290.8	1146	42	318.6	1005	28
		112.8	1097	15	117.8	1171	17	120.4	1258	19
	37	254.0	1335	62	281.8	1111	40	309.9	977	27
		122.8	1080	15	123.0	1160	17	125.2	1247	19
	39	244.3	1284	59	271.1	1069	38	300.1	946	26
		128.0	1067	15	128.2	1145	17	130.6	1235	19
	41	234.6	1233	56	255.6	1007	36	288.2	909	25
		133.0	1054	15	138.2	1129	17	136.0	1216	19
GWLD 200A	33	363.3	1909	47	388.8	1533	30	427.7	1349	21
		131.0	1417	17	137.0	1507	19	139.6	1626	21
	35	351.0	1845	45	378.6	1492	29	416.5	1313	20
		136.6	1398	16	142.4	1494	18	145.6	1611	21
	37	333.0	1750	43	367.2	1447	27	405.4	1278	19
		148.4	1380	16	148.6	1479	18	151.6	1597	20
	39	319.7	1680	40	355.1	1400	26	392.9	1239	19
		154.8	1360	16	155.0	1462	18	158.0	1579	20
	41	306.7	1612	38	333.9	1316	25	379.6	1197	18
		161.2	1341	16	167.4	1437	18	164.6	1560	20
GWLD 250A	33	447.3	2351	64	478.8	1887	42	527.1	1662	28
		167.0	1761	19	174.6	1873	21	178.0	2021	24
	35	434.0	2281	61	465.3	1834	40	513.1	1618	27
		174.2	1744	19	182.0	1856	21	185.6	2003	23
	37	410.5	2157	59	451.7	1780	38	498.2	1571	26
		189.8	1721	18	189.4	1838	21	193.6	1983	23
	39	394.4	2073	56	436.8	1722	36	483.4	1524	25
		197.4	1696	18	197.6	1819	20	201.4	1963	23
	41	378.1	1987	53	409.7	1615	34	467.0	1473	24
		205.6	1673	18	213.4	1786	20	210.0	1941	22

Notes) Above table is based on 5K, 4K, 3K temperature gap between chilled water inlet & outlet. (Fouling factor 0.000086m^2 °C/W(0.0001m^2·h·°C/kcal))
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Eva : Evaporator
Con : Condenser

Performance Data

R-407C Type(60Hz)

↘ GWLD 300A~500A, GWLT 150A~180A

Model	LCWT	Brine In/ Outet Temperature (°C)								
		-6/-9°C			-3/-7°C			0/-5°C		
		CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD
		PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa
	°C	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.
		kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.
GWLD 300A	33	534.9	2811	59	574.2	2263	38	629.1	1984	26
		194.8	2092	14	204.2	2231	16	208.0	2400	18
	35	516.5	2714	57	559.0	2203	37	612.3	1931	25
		203.2	2063	14	212.4	2211	16	217.0	2377	18
	37	488.7	2568	54	541.7	2135	35	595.5	1878	16
		221.2	2035	14	221.6	2188	16	225.8	2354	18
	39	468.6	2463	52	523.7	2064	33	576.8	1819	23
		230.4	2004	14	231.0	2163	15	235.4	2328	17
	41	450.4	2367	49	492.9	1943	32	557.0	1756	22
		239.6	1978	13	249.2	2127	15	245.4	2300	17
GWLD 350A	33	624.9	3284	39	671.8	2648	25	735.0	2318	18
		228.8	2447	15	239.2	2612	17	244.2	2807	19
	35	603.4	3171	38	652.9	2574	25	716.5	2259	17
		238.4	2413	15	249.4	2587	16	254.2	2783	18
	37	570.9	3000	36	632.9	2495	24	695.8	2194	16
		259.6	2381	14	260.2	2560	16	265.0	2754	18
	39	548.7	2884	34	613.1	2417	23	673.9	2125	16
		270.0	2347	14	270.6	2533	16	276.4	2724	18
	41	525.8	2763	32	575.8	2270	22	652.0	2056	15
		281.4	2314	14	292.6	2489	16	287.4	2693	18
GWLD 400A	33	709.7	3730	75	763.7	3010	49	838.6	2644	33
		254.6	2764	16	265.6	2951	18	271.2	3181	20
	35	690.5	3629	73	742.8	2928	47	818.1	2580	32
		265.0	2739	16	277.0	2923	17	282.4	3155	20
	37	668.7	3514	69	720.6	2840	45	795.0	2507	31
		276.4	2709	15	288.8	2894	17	294.4	3123	19
	39	625.1	3285	66	697.3	2749	43	770.8	2431	29
		300.6	2654	15	301.2	2862	17	307.0	3090	19
	41	599.9	3153	63	657.4	2591	41	746.6	2354	28
		313.2	2618	15	325.0	2816	17	319.4	3056	19
GWLD 500A	33	895.6	4707	57	962.6	3794	37	1053.0	3320	25
		322.8	3493	18	337.4	3727	21	344.4	4006	23
	35	865.0	4546	55	935.8	3689	35	1026.8	3238	25
		336.4	3444	18	352.0	3692	20	358.6	3971	23
	37	818.6	4302	52	903.1	3560	34	997.1	3144	24
		366.2	3396	18	366.8	3640	20	374.0	3930	23
	39	787.5	4139	50	874.8	3448	32	966.0	3046	23
		381.0	3350	18	381.6	3602	20	389.8	3887	22
	41	755.2	3969	47	822.1	3240	30	934.9	2948	21
		397.0	3303	17	412.4	3539	19	405.6	3843	22
GWLT 150A	33	276.4	1453	65	297.4	1172	42	325.3	1026	28
		107.7	1101	14	112.8	1176	20	114.9	1262	22
	35	267.9	1408	62	288.9	1139	40	317.1	1000	27
		112.5	1090	18	117.6	1165	20	119.7	1252	22
	37	252.2	1325	59	279.9	1103	38	307.7	970	26
		122.4	1074	17	122.7	1154	19	124.8	1240	22
	39	242.3	1273	56	263.6	1039	36	298.0	940	25
		127.5	1060	17	132.6	1136	19	130.2	1228	21
	41	232.6	1222	53	253.6	1000	35	287.5	907	24
		132.6	1047	17	137.7	1122	19	135.9	1214	21
GWLT 180A	33	311.7	1638	59	335.3	1322	38	367.5	1159	26
		121.8	1243	17	127.5	1327	18	129.9	1426	21
	35	302.3	1589	56	325.7	1284	36	357.5	1127	25
		127.2	1231	16	132.9	1315	18	135.3	1413	21
	37	284.8	1497	54	316.0	1246	35	347.0	1094	24
		138.0	1212	16	138.3	1302	18	141.3	1400	20
	39	274.1	1441	51	304.1	1199	33	336.7	1062	23
		144.0	1199	16	144.3	1285	18	147.0	1387	20
	41	262.4	1379	49	286.0	1127	31	325.0	1025	22
		150.0	1182	16	155.7	1266	17	153.3	1371	20

Notes) Above table is based on 5K, 4K, 3K temperature gap between chilled water inlet & outlet. (Fouling factor 0.000086m^2 °C/W(0.0001m^2·h·°C/kcal))
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LCWT : Leaving Chilled Water Temperature (°C)
CCpa : Cooling Capacity (kW)
FR : Flow Rate (L/min)
PD : Pressure Drop (L/min)
PC : Power Consumptuon(kW)
CW : Cooling Water
CDW : Condensing Water
Eva : Evaporator
Con : Condenser

Capacity Ratings

R-407C Type(60Hz)

↘ GWLF 200A~GWLF 700A

Model	LCWT	Brine In/ Outet Temperature (°C)								
		-6/-9°C			-3/-7°C			0/-5°C		
		CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD
		PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa
	°C	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.
		kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.
GWLF 200A	33	356.9	1876	50	381.0	1502	32	417.7	1317	23
		146.4	1443	8	152.8	1530	9	156.0	1645	11
	35	336.7	1770	48	369.3	1456	31	405.6	1279	22
		159.2	1422	8	159.2	1515	9	162.8	1629	10
	37	323.8	1702	45	348.3	1373	29	393.9	1242	21
		166.0	1404	8	172.4	1493	9	169.2	1614	10
	39	311.4	1637	43	337.4	1330	28	378.6	1194	20
		172.8	1388	8	179.2	1481	9	176.4	1591	10
	41	297.0	1561	41	323.0	1273	26	356.0	1123	19
		180.0	1367	8	186.8	1461	9	190.8	1567	10
GWLF 240A	33	408.2	2145	50	437.7	1725	33	479.5	1512	23
		166.0	1646	12	173.2	1751	13	176.8	1881	15
	35	395.4	2078	48	424.5	1673	31	466.6	1471	22
		173.2	1630	11	180.8	1735	13	184.0	1865	14
	37	372.0	1955	46	410.9	1620	30	452.5	1427	21
		188.0	1605	11	188.4	1718	13	192.0	1848	14
	39	356.9	1876	43	386.4	1523	28	435.3	1373	20
		196.0	1585	11	203.2	1690	12	200.0	1821	14
	41	340.9	1792	41	370.5	1460	27	410.7	1295	19
		204.0	1562	11	211.6	1669	12	216.0	1797	14
GWLF 600A	33	1030.7	5417	47	1104.5	4354	30	1210.3	3816	21
		394.8	4086	21	412.4	4348	24	421.2	4677	26
	35	1000.3	5257	45	1071.9	4225	29	1178.2	3715	20
		410.8	4045	21	430.0	4305	24	438.4	4634	26
	37	940.5	4943	43	1039.2	4096	28	1141.9	3601	20
		447.2	3978	21	447.6	4262	23	457.2	4584	25
	39	903.1	4746	41	977.8	3854	26	1109.4	3498	19
		466.0	3925	21	484.0	4190	23	476.8	4547	25
	41	865.4	4548	39	942.4	3715	25	1044.9	3295	18
		484.4	3869	20	504.4	4147	23	514.4	4470	25
GWLF 700A	33	1173.3	6166	62	1258.5	4961	40	1379.9	4351	27
		462.4	4689	24	483.2	4993	26	493.6	5371	29
	35	1110.4	5836	59	1220.4	4810	38	1340.4	4227	26
		503.6	4627	24	504.0	4943	25	514.8	5318	29
	37	1068.0	5613	56	1152.7	4544	36	1298.2	4094	25
		523.6	4563	23	545.2	4867	25	536.8	5260	28
	39	1024.0	5382	53	1116.6	4401	34	1262.6	3981	24
		546.0	4501	23	567.2	4827	25	558.8	5221	28
	41	977.8	5139	51	1069.2	4214	33	1184.5	3735	23
		568.4	4432	23	590.8	4759	25	604.0	5127	27

Notes) Above table is based on 5K, 4K, 3K temperature gap between chilled water inlet & outlet. (Fouling factor 0.000086m^2 °C/W(0.0001m^2·h·°C/kcal))
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※Legend
LCWT : Leaving Chilled Water Temperature (°C)
PD : Pressure Drop (L/min)
CDW : Condensing Water
CCpa : Cooling Capacity (kW)
PC : Power Consumptuon(kW)
Eva : Evaporator
FR : Flow Rate (L/min)
CW : Cooling Water
Con : Condenser

Water Cooled Type(R-22)

R-407C Type(50Hz)

↘ GWRS 030A~GWRS 100A

Model	LCWT	Cooling Water Outet Temperature (°C)											
		5°C			7°C			9°C			11°C		
		CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD
		PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa
	°C	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.
		kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.
GWRS 030A	33	81.3	233	25	87.3	250	29	91.5	262	33	97.6	280	37
		21.0	293	20	21.4	312	22	23.0	328	24	23.5	347	26
	35	79.6	228	24	85.5	245	27	91.3	262	31	95.7	274	36
		21.9	291	19	22.3	309	22	22.7	327	24	24.4	344	26
	37	77.9	223	23	83.6	240	26	89.3	256	30	93.7	269	34
		22.7	288	19	23.2	306	21	23.6	324	23	25.3	341	25
	39	77.1	221	22	81.7	234	25	87.3	250	29	93.5	268	33
		23.0	287	19	24.1	303	21	24.5	320	23	25.1	340	25
	41	75.0	215	21	80.8	232	24	85.1	244	28	91.4	262	31
		23.9	284	18	24.3	301	20	25.6	317	22	26.0	337	25
GWRS 040A	33	110.0	315	37	117.9	338	42	123.7	355	49	131.8	378	56
		27.7	395	22	28.4	419	25	30.4	442	27	31.1	467	30
	35	107.7	309	36	115.6	331	41	120.7	346	47	129.3	371	54
		28.9	392	22	29.4	416	25	31.6	437	27	32.2	463	29
	37	105.2	302	34	113.0	324	39	120.8	346	45	126.5	363	52
		30.1	388	21	30.6	412	24	31.2	436	26	33.5	459	29
	39	104.3	299	33	110.5	317	38	118.0	338	43	126.5	363	49
		30.3	386	21	31.8	408	23	32.5	431	26	33.1	458	28
	41	101.6	291	31	108.8	312	36	115.2	330	41	123.3	353	47
		31.6	382	20	32.1	404	23	33.7	427	25	34.4	452	27
GWRS 050A	33	139.0	398	30	149.2	428	34	156.4	448	39	167.4	480	45
		34.4	497	36	35.0	528	40	37.6	556	44	38.5	590	49
	35	136.2	390	29	146.1	419	33	156.8	449	38	164.2	471	43
		35.7	493	35	36.4	523	39	37.2	556	43	39.9	585	48
	37	133.0	381	28	143.0	410	32	153.3	439	36	164.1	470	41
		37.2	488	34	37.9	519	38	38.7	550	42	39.5	584	47
	39	131.9	378	26	139.5	400	30	149.8	429	35	160.5	460	39
		37.4	485	34	39.4	513	38	40.1	544	42	41.0	578	46
	41	128.3	368	25	138.1	396	29	146.0	419	33	156.4	448	38
		39.0	480	33	39.7	510	37	41.8	538	41	42.7	571	45
GWRS 060A	33	158.8	455	34	170.5	489	39	178.7	512	45	191.3	548	52
		38.8	566	32	39.5	602	35	42.5	634	39	43.4	673	44
	35	155.7	446	33	167.0	479	38	175.2	502	43	187.5	538	50
		40.3	562	31	41.1	597	34	44.1	629	39	45.1	667	43
	37	152.1	436	32	163.4	468	36	175.1	502	42	183.7	527	48
		42.0	556	31	42.7	591	34	43.6	627	38	46.8	661	42
	39	150.8	432	30	159.5	457	35	171.2	491	40	183.3	525	46
		42.3	554	30	44.5	585	33	45.3	621	37	46.3	658	41
	41	146.3	419	29	158.0	453	33	166.9	478	38	179.1	513	43
		44.0	546	29	44.8	581	33	47.2	614	36	48.1	651	40
GWRS 080A	33	209.5	601	29	224.1	642	34	235.2	674	39	250.7	719	44
		51.7	749	16	52.7	793	18	56.5	836	20	57.8	884	23
	35	204.5	586	28	219.7	630	33	235.4	675	37	245.8	705	42
		53.7	740	16	54.7	787	18	55.9	835	20	59.9	876	23
	37	199.8	573	27	214.7	615	31	230.4	660	36	240.5	689	41
		55.9	733	16	56.9	779	18	58.0	827	20	62.2	868	22
	39	198.0	568	26	209.5	601	30	224.1	642	34	240.3	689	39
		56.3	729	16	59.3	771	17	60.3	815	20	61.5	865	22
	41	192.7	552	25	207.4	595	28	218.7	627	32	234.3	672	37
		58.6	720	15	59.7	766	17	62.7	807	19	63.9	855	21
GWRS 100A	33	269.0	771	25	288.8	828	28	301.5	864	32	323.0	926	37
		63.2	952	12	64.5	1013	14	69.2	1063	15	70.7	1129	17
	35	263.5	755	24	282.7	810	27	302.1	866	31	316.4	907	35
		65.7	944	12	67.1	1003	13	68.3	1062	15	73.4	1117	17
	37	257.4	738	23	276.7	793	26	295.4	847	29	309.9	888	34
		68.4	934	12	69.7	993	13	71.1	1051	15	76.2	1107	16
	39	254.8	730	22	268.8	771	25	288.7	828	28	309.2	886	32
		69.0	928	11	72.5	978	13	73.8	1039	14	75.4	1103	16
	41	248.3	712	21	266.2	763	24	281.3	806	27	301.9	865	31
		71.8	918	11	73.0	972	12	76.8	1027	14	78.3	1090	16

Notes) Above table is based on 5K temperature gap between chilled water inlet & outlet. (Fouling factor 0.000086m² °C/W(0.0001m²·h·°C/kcal))
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Performance Data

R-407C Type(50Hz)

↘ GWRS 125A~GWRS 250A

Model	LCWT	Cooling Water Outet Temperature (°C)											
		5°C			7°C			9°C			11°C		
		CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD
		PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa
	°C	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.
		kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.
GWRS 125A	33	337.4	967	30	361.8	1037	34	377.7	1083	39	404.6	1160	45
		80.8	1199	21	82.6	1274	23	88.6	1337	25	90.5	1419	28
	35	330.0	946	29	354.5	1016	33	378.4	1085	38	396.3	1136	43
		84.1	1187	20	85.7	1262	23	87.5	1336	25	94.0	1406	27
	37	322.3	924	28	345.1	989	32	370.4	1062	36	396.5	1137	39
		87.6	1175	20	89.2	1245	22	90.9	1322	25	92.8	1403	26
	39	319.4	916	26	336.6	965	30	361.5	1036	34	385.6	1105	39
		88.3	1169	19	92.8	1231	22	94.6	1307	25	96.5	1382	26
	41	310.8	891	25	333.2	955	29	352.7	1011	33	376.4	1079	38
		92.0	1155	19	93.5	1223	21	98.2	1293	24	100.2	1366	26
GWRS 150A	33	410.6	1177	33	430.7	1235	38	461.6	1323	43	493.6	1415	49
		93.4	1445	25	100.3	1522	28	102.4	1617	30	104.9	1716	34
	35	402.0	1152	32	431.5	1237	36	452.2	1296	41	484.3	1388	47
		97.2	1431	24	99.1	1521	27	106.4	1601	30	108.7	1700	33
	37	392.8	1126	30	421.9	1209	35	452.6	1297	40	473.8	1358	45
		101.2	1416	24	103.1	1505	27	105.1	1599	29	112.9	1682	33
	39	389.5	1117	29	412.4	1182	33	441.9	1267	38	473.7	1358	43
		101.9	1409	23	107.1	1489	26	109.3	1580	29	111.5	1678	32
	41	377.7	1083	28	401.8	1152	32	431.4	1237	36	462.0	1324	41
		106.1	1387	23	111.5	1471	25	113.6	1562	28	115.9	1657	31
GWRS 175A	33	479.7	1375	23	503.7	1444	27	539.3	1546	30	577.3	1655	35
		109.6	1689	24	117.5	1781	27	120.2	1891	29	122.9	2007	33
	35	467.7	1341	22	504.1	1445	25	528.9	1516	29	565.7	1622	33
		114.0	1668	24	116.3	1778	26	124.7	1874	29	127.6	1987	32
	37	457.7	1312	22	491.6	1409	25	528.7	1516	28	554.2	1589	32
		118.5	1652	23	120.7	1755	26	123.4	1869	28	132.3	1968	31
	39	453.2	1299	21	479.8	1375	24	515.0	1476	27	553.3	1586	30
		119.5	1642	23	125.6	1735	25	128.0	1843	28	130.9	1961	31
	41	441.9	1267	20	467.5	1340	23	502.0	1439	25	538.4	1543	29
		124.3	1623	22	130.8	1715	25	133.2	1821	27	135.7	1932	30
GWRS 200A	33	537.2	1540	23	564.0	1617	27	606.7	1739	30	649.4	1862	35
		121.5	1888	25	130.3	1990	28	133.2	2121	31	136.2	2252	35
	35	526.7	1510	22	565.4	1621	25	592.4	1698	29	634.3	1818	33
		126.2	1872	25	128.7	1990	27	138.2	2094	31	141.2	2223	34
	37	514.9	1476	21	553.0	1585	25	593.1	1700	28	621.7	1782	32
		131.4	1853	24	133.9	1969	28	136.5	2092	30	146.4	2202	33
	39	502.5	1441	20	539.9	1548	24	579.4	1661	26	620.9	1780	30
		136.9	1833	24	139.4	1947	27	142.0	2068	29	144.8	2195	33
	41	497.6	1426	22	535.1	1534	22	565.9	1622	25	606.7	1739	29
		137.8	1821	25	140.3	1936	26	147.5	2045	29	150.3	2170	32
GWRS 250A	33	686.6	1968	34	720.1	2064	39	771.5	2212	44	828.2	2374	50
		154.7	2412	30	166.2	2541	34	169.7	2698	37	174.0	2873	42
	35	672.2	1927	32	721.6	2069	37	756.1	2167	42	809.6	2321	48
		161.0	2389	30	164.1	2539	33	176.3	2673	36	180.1	2837	41
	37	657.9	1886	31	705.6	2023	36	756.8	2169	30	792.3	2271	46
		167.3	2366	29	170.8	2512	32	174.1	2669	36	187.1	2808	40
	39	651.6	1868	30	689.7	1977	34	739.1	2119	39	792.1	2271	44
		168.8	2352	28	177.4	2486	32	181.1	2638	35	184.7	2800	39
	41	631.9	1811	28	672.1	1927	32	721.6	2069	37	772.6	2215	42
		175.7	2315	28	184.7	2456	31	188.1	2608	34	192.1	2765	38

Notes) Above table is based on 5K temperature gap between chilled water inlet & outlet. (Fouling factor 0.000086m^2 °C/W(0.0001m^2·h·°C/kcal))
You need to contact us in case that temperature gap chilled water or brine is difference from shown above.

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LCWT : Leaving Chilled Water Temperature (°C)
CCpa : Cooling Capacity (kW)
FR : Flow Rate (L/min)
PD : Pressure Drop (L/min)
PC : Power Consumptuon(kW)
CW : Cooling Water
CDW : Condensing Water
Eva : Evaporator
Con : Condenser

Performance Data

R-407C Type(50Hz)

↘ GWRD 080A~GWRD 250A

Model	LCWT	Cooling Water Outet Temperature (°C)											
		5°C			7°C			9°C			11°C		
		CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD
		PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa
	°C	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.
		kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.
GWRD 080A	33	215.8	619	32	230.8	662	37	242.0	694	42	258.2	740	48
		55.6	778	18	56.6	824	20	60.8	868	23	62.2	918	25
	35	211.4	606	31	226.0	648	34	242.4	695	40	253.0	725	38
		57.8	772	18	59.0	817	21	60.2	867	23	64.6	910	19
	37	205.6	589	29	221.2	634	33	237.0	679	39	253.2	726	35
		60.2	762	18	61.2	810	17	62.6	859	22	63.8	909	18
	39	203.6	584	28	215.6	618	32	230.8	662	37	247.2	709	35
		60.8	758	17	63.8	801	17	65.0	848	22	66.2	898	18
	41	198.4	569	27	213.6	612	31	224.8	644	35	241.2	691	33
		63.2	750	17	64.2	796	19	67.6	838	21	68.8	889	18
GWRD 100A	33	277.6	796	27	297.8	854	29	312.6	896	35	333.2	955	40
		68.8	993	14	70.4	1056	16	75.4	1112	17	77.0	1176	19
	35	271.6	779	26	296.2	849	28	312.0	894	33	326.6	936	38
		71.6	984	13	70.8	1052	15	74.4	1108	17	80.0	1166	19
	37	265.6	761	25	285.2	818	28	305.0	874	32	326.4	936	37
		74.6	975	13	76.0	1035	15	77.4	1096	17	79.0	1162	18
	39	263.0	754	23	278.6	799	27	297.6	853	30	319.2	915	35
		75.2	970	13	79.0	1025	14	80.6	1084	16	82.0	1150	18
	41	255.8	733	22	275.4	789	26	290.4	832	29	311.6	893	33
		78.4	958	13	79.8	1018	14	83.6	1072	16	85.2	1137	18
GWRD 120A	33	318.2	912	27	341.4	979	31	358.2	1027	35	381.8	1094	40
		78.0	1136	19	79.4	1206	21	85.2	1271	24	87.2	1344	26
	35	311.8	894	26	334.4	959	29	350.8	1006	34	374.4	1073	39
		81.0	1126	19	82.6	1195	21	88.6	1260	24	90.4	1332	25
	37	304.6	873	25	327.2	938	28	349.4	1002	32	366.4	1050	37
		84.4	1115	18	85.8	1184	20	87.6	1253	17	94.0	1320	25
	39	301.6	865	24	319.4	916	27	341.6	979	31	366.2	1050	35
		85.0	1108	18	89.4	1172	20	91.0	1240	23	92.8	1316	25
	41	294.0	843	23	315.0	903	26	332.8	954	29	357.0	1023	34
		88.4	1096	18	90.0	1161	20	94.8	1226	22	96.4	1300	25
GWRD 160A	33	427.8	1226	35	448.8	1287	40	482.8	1384	46	516.4	1480	53
		103.6	1523	25	111.2	1605	28	113.6	1710	31	116.4	1814	34
	35	418.8	1201	34	449.6	1289	38	471.2	1351	44	504.0	1445	50
		107.8	1510	35	109.8	1604	27	118.0	1689	30	120.8	1791	34
	37	409.2	1173	32	439.6	1260	37	471.6	1352	42	493.8	1416	48
		112.2	1495	25	114.4	1588	27	116.6	1686	30	125.2	1774	33
	39	405.8	1163	31	427.2	1225	35	460.4	1320	40	492.8	1413	46
		113.0	1487	29	119.0	1566	26	121.2	1667	29	123.8	1768	32
	41	395.0	1132	30	424.8	1218	34	449.4	1288	39	481.2	1379	44
		117.8	1470	24	119.8	1561	26	126.0	1649	28	128.6	1748	32
GWRD 200A	33	557.6	1598	24	584.8	1676	28	626.6	1796	31	670.8	1923	36
		125.4	1958	27	134.8	2063	30	137.6	2191	33	140.8	2327	37
	35	546.0	1565	23	586.0	1680	26	614.8	1762	30	657.6	1885	35
		130.6	1940	27	133.0	2061	29	142.6	2171	33	146.0	2304	36
	37	531.6	1524	22	571.0	1637	26	614.8	1762	29	644.4	1847	33
		135.8	1913	26	138.4	2034	29	141.2	2167	32	151.4	2281	36
	39	519.6	1490	21	558.4	1601	25	598.4	1715	28	643.6	1845	32
		141.2	1894	25	143.8	2013	28	146.8	2136	31	149.8	2274	35
	41	513.8	1473	20	544.2	1560	23	584.4	1675	26	626.6	1796	30
		142.4	1881	25	149.6	1989	28	152.4	2112	31	155.4	2242	34
GWRD 250A	33	687.8	1972	33	722.4	2071	38	773.4	2217	44	827.0	2371	50
		160.2	2431	31	171.6	2563	34	175.6	2720	38	179.8	2886	42
	35	673.2	1930	32	722.8	2072	37	758.6	2175	42	811.4	2326	48
		166.6	2407	30	169.8	2559	33	182.2	2697	37	186.4	2860	41
	37	658.8	1889	31	706.8	2026	35	758.4	2174	40	794.0	2276	46
		173.2	2385	29	176.8	2533	33	180.2	2691	36	193.6	2831	41
	39	652.6	1871	29	690.8	1980	34	740.6	2123	38	793.8	2276	44
		174.8	2372	29	183.6	2507	32	187.4	2660	36	191.2	2824	40
	41	635.4	1821	28	673.2	1930	32	723.0	2073	37	774.2	2219	42
		182.0	2343	28	191.2	2478	32	194.8	2631	35	198.8	2789	39

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Performance Data

R-407C Type(50Hz)

↘ GWRD 300A~500A, GWRT 150A~180A

Model	LCWT	Cooling Water Outet Temperature (°C)											
		5°C			7°C			9°C			11°C		
		CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD
		PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa
	°C	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.
		kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.
GWRD 300A	33	821.2	2354	31	861.4	2469	35	923.2	2647	40	987.2	2830	46
		186.8	2890	33	200.6	3044	26	204.8	3234	28	209.8	3431	31
	35	804.0	2305	30	863.0	2474	34	904.4	2593	38	968.6	2777	44
		194.4	2862	23	198.2	3042	25	212.8	3203	28	217.4	3400	31
	37	785.6	2252	28	843.8	2419	35	905.2	2595	37	947.6	2716	42
		202.4	2832	22	206.2	3010	33	210.2	3197	27	225.8	3364	30
	39	779.0	2233	27	824.8	2364	31	883.8	2534	35	947.4	2716	40
		203.8	2817	22	214.2	2978	24	218.6	3160	26	223.0	3355	29
	41	755.4	2165	26	803.6	2304	30	862.8	2473	34	924.0	2649	39
		212.2	2774	21	223.0	2943	24	227.2	3125	26	231.8	3313	29
GWRD 350A	33	959.4	2750	20	1007.4	2888	23	1078.6	3092	26	1154.6	3310	30
		219.2	3379	24	235.0	3562	27	240.4	3781	29	245.8	4014	33
	35	935.4	2681	20	1008.2	2890	23	1057.8	3032	25	1131.4	3243	29
		228.0	3335	24	232.6	3557	26	249.4	3747	29	255.2	3975	32
	37	915.4	2624	19	983.2	2819	22	1057.4	3031	25	1108.4	3177	28
		237.0	3304	23	241.4	3511	26	246.8	3739	28	264.6	3936	31
	39	906.4	2598	18	959.6	2751	21	1030.0	2953	24	1106.6	3172	27
		239.0	3283	23	251.2	3471	25	256.0	3687	28	261.8	3923	31
	41	883.8	2534	17	935.0	2680	20	1004.0	2878	23	1076.8	3087	25
		248.6	3246	22	261.6	3430	25	266.4	3642	27	271.4	3865	30
GWRD 400A	33	1091.0	3128	39	1145.4	3283	45	1227.2	3518	52	1311.8	3760	59
		243.8	3826	26	261.6	4033	29	267.2	4284	32	273.8	4545	36
	35	1064.4	3051	38	1146.6	3287	43	1202.6	3447	49	1287.4	3691	57
		253.6	3778	25	258.8	4029	28	277.6	4243	31	283.6	4504	35
	37	1042.0	2987	36	1118.8	3207	41	1198.2	3435	47	1260.4	3613	54
		263.4	3742	25	268.4	3977	28	274.2	4221	31	294.4	4457	34
	39	1017.0	2915	35	1092.6	3132	40	1172.2	3360	45	1229.0	3523	52
		274.4	3702	24	279.4	3933	27	284.8	4177	30	305.2	4398	33
	41	1005.8	2883	33	1065.0	3053	38	1143.2	3277	43	1225.4	3513	50
		276.8	3677	24	290.8	3887	27	296.2	4126	29	302.0	4379	33
GWRD 500A	33	1373.2	3937	30	1440.2	4129	34	1543.6	4425	39	1656.4	4748	44
		309.4	4823	30	332.4	5081	34	339.4	5398	37	348.0	5746	42
	35	1344.4	3854	28	1443.2	4137	32	1512.2	4335	37	1619.2	4642	42
		322.0	4777	30	328.2	5078	33	352.6	5346	36	360.2	5674	41
	37	1315.8	3772	27	1411.2	4045	31	1513.6	4339	35	1584.6	4543	41
		334.6	4731	29	341.6	5025	32	348.2	5337	36	374.2	5615	40
	39	1303.2	3736	26	1379.4	3954	30	1478.2	4238	34	1584.2	4541	39
		337.6	4704	28	354.8	4971	32	362.2	5276	35	369.4	5600	39
	41	1263.8	3623	25	1344.2	3853	29	1443.2	4137	32	1545.2	4430	37
		351.4	4630	28	369.4	4912	31	376.2	5216	34	384.2	5531	38
GWRT 150A	33	427.2	1225	34	448.8	1287	39	480.6	1378	44	514.5	1475	50
		102.6	1519	29	110.1	1602	32	112.5	1700	35	115.2	1805	39
	35	418.2	1199	33	449.1	1287	37	471.3	1351	42	504.3	1446	49
		106.8	1505	28	108.9	1600	31	116.7	1686	35	119.4	1788	38
	37	408.9	1172	32	439.2	1259	36	471.3	1351	41	494.1	1416	47
		111.3	1491	28	113.4	1584	31	115.5	1682	34	123.9	1772	38
	39	405.3	1162	31	429.3	1231	34	460.2	1319	39	493.2	1414	45
		112.2	1484	27	117.9	1569	30	120.3	1664	33	122.7	1766	37
	41	394.8	1132	28	424.8	1218	23	449.4	1288	37	481.8	1381	43
		116.7	1466	27	118.8	1558	30	124.8	1646	33	127.2	1746	36
GWRT 180A	33	482.1	1382	34	507.0	1453	35	541.8	1553	40	580.2	1663	46
		115.8	1714	29	124.2	1809	30	127.2	1918	33	129.9	2036	36
	35	471.9	1353	29	506.7	1453	33	531.6	1524	38	569.4	1632	44
		120.6	1699	26	123.0	1805	29	131.7	1901	32	134.7	2018	36
	37	462.0	1324	28	496.2	1422	32	531.6	1524	37	557.4	1598	42
		125.4	1684	26	127.5	1788	29	130.5	1898	31	139.8	1999	35
	39	455.7	1306	27	484.5	1389	31	519.9	1490	35	556.5	1595	40
		126.3	1668	25	132.9	1770	28	135.3	1878	31	138.3	1992	34
	41	443.7	1272	26	470.1	1348	30	507.0	1453	34	543.6	1558	39
		131.7	1649	25	138.3	1744	28	141.0	1858	30	143.7	1970	34

Notes) Above table is based on 5K temperature gap between chilled water inlet & outlet. (Fouling factor 0.000086m² °C/W(0.0001m²·h·°C/kcal))
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Eva : Evaporator
FR : Flow Rate (L/min)
CW : Cooling Water
Con : Condenser

Performance Data

R-407C Type(50Hz)

↘ GWRF 200A~GWRF 700A

Model	LCWT	Cooling Water Outet Temperature (°C)											
		5°C			7°C			9°C			11°C		
		CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD
		PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa
	°C	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.
		kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.
GWRF 200A	33	555.2	1592	27	596.0	1709	31	625.2	1792	35	666.4	1910	40
		137.6	1986	14	140.8	2112	15	150.8	2225	17	154.0	2352	19
	35	543.2	1557	26	583.6	1673	29	624.0	1789	33	666.4	1910	38
		143.2	1968	13	146.0	2092	15	148.8	2215	17	160.0	2369	19
	37	531.2	1523	25	570.4	1635	28	610.0	1749	32	652.8	1871	37
		149.2	1950	13	152.0	2071	15	154.8	2192	17	158.0	2324	18
	39	526.0	1508	27	557.2	1597	27	595.2	1706	30	638.4	1830	35
		150.4	1939	25	158.0	2050	14	161.2	2168	16	164.0	2300	18
	41	511.6	1467	22	550.8	1579	26	580.8	1665	29	623.2	1787	33
		156.8	1916	13	159.6	2036	14	167.2	2144	16	170.4	2275	18
GWRF 240A	33	636.4	1824	27	682.8	1957	31	716.4	2054	35	763.6	2189	40
		156.0	2272	19	158.8	2413	21	170.4	2542	24	174.4	2689	26
	35	623.6	1788	26	678.8	1946	29	701.6	2011	34	748.8	2147	39
		162.0	2252	19	160.0	2405	21	177.2	2519	24	180.8	2665	25
	37	609.2	1746	25	654.4	1876	28	698.8	2003	32	732.8	2101	37
		168.8	2230	18	171.6	2368	20	175.2	2505	23	188.0	2640	25
	39	603.2	1729	24	638.8	1831	27	683.2	1959	31	732.4	2100	35
		170.0	2217	18	178.8	2344	20	182.0	2480	23	185.6	2632	25
	41	588.0	1686	23	630.0	1806	26	665.6	1908	29	714.0	2047	34
		176.8	2192	18	180.0	2322	20	189.6	2452	22	192.8	2599	25
GWRF 600A	33	1610.8	4618	25	1729.2	4957	29	1812.4	5196	33	1940.8	5564	37
		372.0	5684	35	379.2	6044	39	407.6	6364	44	416.8	6758	49
	35	1578.8	4526	24	1695.6	4861	27	1777.2	5095	31	1901.6	5451	36
		386.4	5634	35	394.0	5990	38	422.8	6307	43	432.8	6692	48
	37	1536.4	4404	23	1651.2	4733	27	1776.0	5091	30	1862.8	5340	34
		402.0	5557	34	409.6	5908	38	418.8	6292	42	448.8	6627	47
	39	1523.6	4368	22	1611.2	4619	25	1730.0	4959	29	1852.4	5310	33
		405.2	5529	33	426.4	5841	37	434.4	6205	41	443.6	6582	46
	41	1482.8	4251	21	1595.6	4574	24	1686.0	4833	27	1808.8	5185	31
		422.0	5460	33	429.2	5804	36	452.0	6129	40	460.8	6506	45
GWRF 700A	33	1843.2	5284	33	1979.2	5674	38	2152.8	6171	43	2220.0	6364	49
		436.0	6534	40	444.4	6948	45	439.6	7432	50	488.4	7764	56
	35	1803.6	5170	32	1937.6	5554	36	2076.4	5952	41	2177.6	6242	47
		453.6	6471	39	462.4	6880	44	472.4	7307	49	506.4	7694	54
	37	1764.0	5057	30	1893.6	5428	35	2032.8	5827	40	2176.4	6239	45
		471.6	6409	39	481.2	6808	43	490.4	7233	48	501.2	7676	53
	39	1746.0	5005	29	1850.0	5303	33	1984.0	5687	38	2128.0	6100	43
		476.0	6370	38	500.0	6737	42	510.4	7151	47	520.0	7591	52
	41	1701.6	4878	28	1828.8	5243	32	1936.0	5550	36	2074.4	5947	42
		495.2	6297	37	504.8	6690	41	530.4	7070	46	541.2	7498	51

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PC : Power Consumptuon(kW)
Eva : Evaporator
FR : Flow Rate (L/min)
CW : Cooling Water
Con : Condenser

Performance Data

R-407C Type(50Hz)

↘ GWLS 030A~GWLS 100A

Model	LCWT	Brine In/ Outet Temperature (°C)								
		-6/-9°C			-3/-7°C			0/-5°C		
		CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD
		PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa
	°C	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.
		kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.
GWLS 030A	33	45.9	241	34	49.2	194	23	53.9	170	16
		18.1	183	9	18.8	195	10	19.2	210	11
	35	44.4	233	32	47.9	189	22	52.5	166	15
		18.8	181	9	19.7	194	10	20.0	208	11
	37	43.0	226	31	46.5	183	21	50.9	161	14
		19.7	180	9	20.5	192	10	20.9	206	11
	39	40.3	212	29	44.8	177	20	49.3	155	14
		21.4	177	9	21.4	190	10	21.8	204	11
	41	38.7	203	28	42.1	166	19	47.4	149	13
		22.3	175	9	23.1	187	10	22.6	201	11
GWLS 040A	33	62.1	326	51	66.4	262	33	72.7	229	23
		23.8	246	10	24.9	262	11	25.3	281	13
	35	60.1	316	49	64.7	255	32	70.9	224	22
		24.8	243	10	25.9	260	11	26.4	279	13
	37	58.3	306	47	62.7	247	30	69.0	218	21
		25.9	241	10	27.0	257	11	27.5	277	12
	39	54.6	287	44	60.5	238	29	67.0	211	20
		28.2	237	10	28.2	254	11	28.7	274	12
	41	52.4	275	42	57.1	225	27	64.4	203	19
		29.3	234	10	30.4	251	11	29.9	270	12
GWLS 050A	33	77.2	406	41	83.2	328	26	91.1	287	19
		29.3	305	16	30.6	326	18	31.2	351	21
	35	75.1	395	39	80.8	318	25	88.8	280	18
		30.6	303	6	31.9	323	18	32.5	348	20
	37	71.1	374	38	78.4	309	25	86.2	272	17
		33.3	299	16	33.3	320	18	33.9	344	20
	39	68.2	358	36	75.9	299	24	83.7	264	16
		34.7	295	16	34.7	317	18	35.3	341	20
	41	65.4	344	34	71.4	281	23	80.6	254	16
		36.1	291	16	37.5	312	17	36.8	337	19
GWLS 060A	33	88.6	466	48	95.1	375	31	104.2	329	22
		33.1	349	15	34.6	372	16	35.3	400	18
	35	86.1	453	46	92.6	365	29	101.6	320	21
		34.6	346	14	36.1	369	16	36.8	397	18
	37	83.3	438	43	89.9	354	28	98.9	312	20
		36.0	342	14	37.7	366	16	38.3	393	18
	39	78.3	412	41	87.1	343	27	95.9	302	19
		39.2	337	14	39.2	362	16	39.9	389	18
	41	75.1	395	39	81.9	323	25	92.8	293	18
		40.9	333	14	42.4	356	15	41.6	385	17
GWLS 080A	33	118.0	620	40	126.3	498	26	138.4	436	18
		44.4	466	7	46.3	495	8	47.2	532	9
	35	114.2	600	39	122.8	484	25	134.8	425	18
		46.2	460	7	48.3	490	8	49.2	527	9
	37	110.6	581	36	119.2	470	25	131.2	414	17
		48.2	455	7	50.4	486	8	51.2	523	9
	39	103.7	545	35	115.3	454	23	127.2	401	16
		52.5	448	7	52.5	481	8	53.4	518	9
	41	99.5	523	33	108.5	428	22	122.5	386	15
		54.7	442	7	56.7	474	8	55.7	511	9
GWLS 100A	33	151.2	795	34	162.8	642	23	178.3	562	15
		54.4	589	6	56.7	629	6	57.8	677	7
	35	146.8	772	32	158.3	624	22	172.9	545	15
		56.7	583	5	59.1	623	6	60.2	668	7
	37	142.4	748	31	153.6	605	21	168.3	531	14
		59.0	577	5	61.7	617	6	62.7	662	7
	39	133.9	704	29	147.9	583	20	163.1	514	13
		64.2	568	5	64.3	608	6	65.3	655	7
	41	128.4	675	27	139.4	549	19	157.6	497	13
		66.9	560	5	69.3	598	6	68.1	647	6

Notes) Above table is based on 5K, 4K, 3K temperature gap between chilled water inlet & outlet. (Fouling factor 0.000086m^2 °C/W(0.0001m^2·h·°C/kcal))
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※Legend
LCWT : Leaving Chilled Water Temperature (°C)
CCpa : Cooling Capacity (kW)
FR : Flow Rate (L/min)
PD : Pressure Drop (L/min)
PC : Power Consumptuon(kW)
CW : Cooling Water
CDW : Condensing Water
Eva : Evaporator
Con : Condenser

Performance Data

R-407C Type(50Hz)

↘ GWLS 125A~GWLS 250A

Model	LCWT	Brine In/ Outet Temperature (°C)								
		-6/-9°C			-3/-7°C			0/-5°C		
		CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD
		PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa
	°C	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.
		kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.
GWLS 125A	33	190.0	999	41	203.3	802	27	222.7	702	19
		69.4	744	9	70.5	785	10	72.1	845	12
	35	184.4	969	39	197.7	779	25	216.9	684	18
		72.4	736	9	73.5	777	10	75.2	837	11
	37	178.6	939	37	191.8	756	25	211.0	665	17
		75.5	728	9	76.6	769	10	78.3	829	11
	39	166.8	877	36	185.8	733	24	204.6	645	16
		82.1	714	9	79.7	761	10	81.7	821	11
	41	160.0	841	34	174.7	688	23	197.6	623	16
		85.5	704	9	86.1	748	10	85.1	811	11
GWLS 150A	33	229.4	1206	46	246.4	971	30	270.9	854	21
		79.9	887	11	81.2	939	13	83.2	1015	14
	35	223.0	1172	44	239.9	946	28	264.1	833	19
		83.4	878	11	84.7	930	12	86.8	1006	14
	37	216.1	1136	42	232.9	918	27	257.2	811	19
		86.9	869	11	88.4	921	12	90.3	996	14
	39	204.2	1073	40	225.9	890	26	249.5	787	18
		94.6	857	11	91.9	911	12	94.2	985	14
	41	194.4	1022	38	218.1	860	25	241.4	761	17
		98.5	840	11	95.8	900	12	98.2	974	13
GWLS 175A	33	268.0	1408	32	287.9	1135	22	316.5	998	15
		93.8	1037	11	95.4	1099	12	97.7	1187	14
	35	260.4	1369	31	280.2	1105	21	308.9	974	14
		97.9	1027	11	99.4	1088	12	101.6	1177	14
	37	252.5	1327	30	272.5	1074	20	300.4	947	14
		102.1	1017	11	103.4	1078	12	106.0	1165	13
	39	238.6	1254	28	263.9	1040	19	290.2	915	13
		111.1	1002	10	107.9	1066	12	110.5	1149	13
	41	227.1	1194	27	254.8	1004	18	280.7	885	12
		115.7	983	10	112.5	1053	12	115.2	1135	13
GWLS 200A	33	301.6	1585	32	323.7	1276	22	354.7	1119	15
		104.2	1163	11	105.9	1232	13	108.3	1327	14
	35	293.2	1541	31	315.7	1244	21	345.9	1091	14
		108.7	1152	11	110.2	1221	13	112.8	1315	14
	37	282.9	1487	29	306.7	1209	20	336.5	1061	14
		113.3	1136	11	115.0	1209	12	117.7	1302	14
	39	267.4	1405	28	297.1	1171	19	327.2	1032	13
		123.3	1120	11	119.8	1195	12	122.5	1289	14
	41	256.8	1350	26	285.7	1126	18	316.7	999	12
		128.3	1104	11	124.9	1177	12	127.7	1274	14
GWLS 250A	33	384.2	2019	47	412.4	1626	30	453.3	1429	21
		132.4	1481	14	134.4	1568	15	137.8	1694	17
	35	373.4	1962	45	401.5	1583	29	441.9	1393	20
		138.1	1466	13	140.3	1553	15	143.7	1679	17
	37	361.9	1902	43	390.5	1539	28	430.5	1357	20
		144.0	1450	13	146.0	1538	15	149.6	1663	17
	39	342.1	1798	41	378.3	1491	26	417.8	1317	19
		156.7	1430	13	152.2	1521	15	155.9	1645	16
	41	326.7	1717	38	365.4	1440	25	404.3	1275	18
		162.9	1404	13	158.6	1502	14	162.6	1625	16

Notes) Above table is based on 5K, 4K, 3K temperature gap between chilled water inlet & outlet. (Fouling factor 0.000086m^2 °C/W(0.0001m^2·h·°C/kcal))
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※Legend
LCWT : Leaving Chilled Water Temperature (°C)
PD : Pressure Drop (L/min)
CDW : Condensing Water
CCpa : Cooling Capacity (kW)
PC : Power Consumptuon(kW)
Eva : Evaporator
FR : Flow Rate (L/min)
CW : Cooling Water
Con : Condenser

Performance Data

R-407C Type(50Hz)

↘ GWLD 080A~GWLD 250A

Model	LCWT	Brine In/ Outet Temperature (°C)								
		-6/-9°C			-3/-7°C			0/-5°C		
		CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD
		PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa
	°C	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.
		kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.
GWLD 080A	33	120.9	635	44	129.8	512	28	141.6	447	20
		48.0	484	8	50.2	516	9	51.2	553	10
	35	117.4	617	42	125.7	495	27	138.1	435	19
		50.2	480	8	52.4	511	9	53.2	548	10
	37	110.4	580	40	122.0	481	26	134.2	423	18
		54.6	473	8	54.4	506	9	55.6	544	10
	39	106.1	558	38	117.4	463	25	130.1	410	17
		56.8	467	8	56.8	499	9	57.8	539	10
	41	102.0	536	36	110.6	436	24	124.8	394	16
		59.2	462	8	61.4	493	9	60.4	531	10
GWLD 100A	33	156.1	820	36	166.9	658	24	183.0	577	17
		59.4	618	6	62.2	657	7	63.4	706	8
	35	151.6	797	35	162.3	640	23	178.2	562	16
		62.0	612	6	64.8	651	7	66.0	700	8
	37	142.8	750	33	157.4	620	22	173.3	546	15
		67.6	603	6	67.6	645	7	68.8	694	8
	39	137.4	722	31	152.6	601	21	168.0	530	14
		70.4	596	6	70.4	639	7	71.6	687	7
	41	131.8	693	30	143.0	564	20	161.5	509	14
		73.4	588	6	76.0	628	7	74.8	677	7
GWLD 120A	33	178.4	938	37	192.0	757	25	210.2	663	17
		67.4	705	8	70.4	752	10	71.6	808	11
	35	173.4	911	35	186.0	733	23	203.9	643	16
		70.4	699	8	73.2	743	9	74.6	798	11
	37	168.1	883	33	180.4	711	22	198.1	625	16
		73.2	692	8	76.4	736	9	77.8	791	11
	39	156.8	824	32	174.5	688	21	192.0	605	15
		79.6	678	8	79.6	728	9	81.2	783	10
	41	150.4	790	30	163.8	646	20	185.2	584	14
		83.0	669	8	86.2	717	9	84.4	773	10
GWLD 160A	33	237.7	1249	49	256.6	1011	31	280.7	885	22
		89.2	937	12	93.4	1003	13	95.0	1077	15
	35	230.7	1212	46	249.6	984	30	273.5	862	21
		93.0	928	11	97.4	995	13	99.2	1068	14
	37	223.5	1175	44	241.4	952	29	266.3	840	20
		97.0	919	11	101.2	982	13	103.2	1059	14
	39	210.1	1104	42	233.6	921	27	258.1	814	19
		105.4	904	11	105.6	972	12	107.6	1048	14
	41	201.7	1060	40	219.4	865	26	249.7	787	18
		109.8	893	11	114.0	956	12	112.2	1037	14
GWLD 200A	33	310.2	1630	33	333.0	1313	22	366.1	1154	15
		108.2	1199	12	113.0	1279	14	115.2	1380	15
	35	301.5	1585	32	324.2	1278	21	357.3	1127	15
		112.8	1188	12	118.0	1268	13	120.0	1368	15
	37	292.1	1535	30	315.3	1243	20	347.6	1096	14
		117.6	1174	12	122.8	1256	13	125.0	1355	15
	39	276.2	1452	29	305.4	1204	20	337.2	1063	13
		128.0	1159	12	128.0	1242	13	130.4	1340	15
	41	264.3	1389	27	294.9	1162	19	324.9	1025	13
		133.4	1140	11	133.4	1228	13	135.8	1321	14
GWLD 250A	33	383.7	2017	46	412.1	1624	30	451.3	1423	21
		138.0	1496	14	144.2	1595	16	147.0	1715	18
	35	372.8	1959	44	401.0	1581	28	440.4	1389	20
		144.0	1481	14	150.4	1581	15	153.0	1701	17
	37	359.4	1889	42	389.9	1537	27	428.1	1350	19
		150.0	1460	13	156.6	1567	15	159.4	1684	17
	39	337.6	1774	40	375.5	1480	26	415.2	1309	18
		163.2	1436	13	163.2	1544	15	166.4	1667	17
	41	325.0	1708	38	353.4	1393	25	401.5	1266	17
		169.8	1418	13	176.4	1519	15	173.4	1648	16

Notes) Above table is based on 5K, 4K, 3K temperature gap between chilled water inlet & outlet. (Fouling factor 0.000086m² °C/W(0.0001m²·h·°C/kcal))
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※Legend
LCWT : Leaving Chilled Water Temperature (°C)
CCpa : Cooling Capacity (kW)
FR : Flow Rate (L/min)
PD : Pressure Drop (L/min)
PC : Power Consumptuon(kW)
CW : Cooling Water
CDW : Condensing Water
Eva : Evaporator
Con : Condenser

Performance Data

R-407C Type(50Hz)

↘ GWLD 300A~500A, GWLT 150A~180A

Model	LCWT	Brine In/ Outet Temperature (°C)								
		-6/-9°C			-3/-7°C			0/-5°C		
		CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD
		PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa
	°C	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.
		kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.
GWLD 300A	33	456.8	2401	42	490.6	1934	27	539.4	1701	19
		160.8	1770	11	168.0	1888	12	171.4	2038	13
	35	443.8	2332	41	477.2	1881	26	525.6	1657	19
		167.8	1753	10	175.4	1871	12	178.8	2019	13
	37	429.8	2259	39	463.2	1826	25	510.9	1611	18
		175.0	1734	10	182.8	1852	11	186.4	1999	13
	39	404.3	2125	37	449.2	1771	25	496.3	1565	17
		190.4	1705	10	190.2	1833	11	194.0	1979	13
	41	388.2	2040	35	423.0	1667	24	479.9	1513	16
		198.4	1682	10	205.6	1802	11	202.2	1955	12
GWLD 350A	33	533.6	2804	28	573.0	2259	19	630.1	1987	13
		188.8	2071	11	197.4	2208	12	201.2	2383	14
	35	518.2	2723	27	557.5	2197	18	613.9	1936	12
		197.0	2050	11	205.8	2188	12	209.8	2361	14
	37	502.1	2639	25	541.9	2136	17	597.9	1885	12
		205.4	2028	11	214.2	2167	12	218.4	2340	13
	39	472.1	2481	25	524.6	2068	17	579.7	1828	11
		223.6	1994	10	223.4	2144	12	227.6	2314	13
	41	454.5	2389	24	493.9	1947	16	560.6	1768	11
		232.4	1969	10	241.4	2108	11	237.4	2288	13
GWLD 400A	33	605.9	3184	54	653.1	2574	35	718.6	2266	25
		210.0	2339	12	219.8	2502	13	223.6	2701	15
	35	588.8	3094	52	637.0	2511	34	700.7	2210	24
		219.2	2316	11	228.8	2482	13	233.2	2677	15
	37	570.9	3000	49	618.7	2439	32	678.6	2140	23
		228.6	2292	11	238.6	2458	13	243.0	2642	14
	39	540.8	2842	47	596.6	2352	31	658.4	2076	22
		248.2	2262	11	248.6	2423	12	253.4	2614	14
	41	518.0	2722	45	576.2	2271	29	638.5	2013	21
		258.8	2227	11	259.0	2394	12	263.6	2586	14
GWLD 500A	33	764.7	4019	41	824.8	3251	26	902.7	2847	19
		266.4	2956	14	278.6	3163	15	283.8	3401	17
	35	742.9	3904	39	798.9	3149	25	879.6	2774	18
		277.8	2926	13	290.4	3123	15	296.0	3370	17
	37	719.8	3783	37	777.0	3063	25	856.6	2701	17
		289.8	2894	13	302.2	3094	15	308.0	3339	17
	39	681.5	3582	35	752.3	2965	24	831.0	2620	16
		314.8	2856	13	315.2	3060	14	321.2	3303	16
	41	652.4	3429	33	726.2	2862	23	803.8	2535	15
		328.0	2810	13	328.4	3023	14	334.8	3264	16
GWLT 150A	33	236.1	1241	46	254.8	1004	30	279.0	880	21
		88.8	931	13	93.0	997	15	94.8	1072	16
	35	229.1	1204	44	247.8	977	29	271.7	857	20
		92.7	922	13	96.9	988	14	99.0	1063	16
	37	221.9	1166	42	240.8	949	27	264.6	834	19
		96.9	914	13	101.1	980	14	102.9	1054	16
	39	208.2	1094	40	232.9	918	26	256.4	809	19
		105.3	899	13	105.3	970	14	107.4	1043	16
	41	200.0	1051	38	218.9	863	25	247.9	782	18
		109.5	887	12	113.7	953	14	111.9	1031	16
GWLT 180A	33	266.2	1399	42	287.2	1132	27	314.4	991	19
		100.5	1051	12	105.3	1125	14	107.1	1208	15
	35	258.3	1358	40	279.9	1103	26	306.8	967	18
		105.0	1041	12	109.5	1116	13	111.6	1199	15
	37	250.7	1318	38	271.4	1070	25	298.3	941	18
		109.2	1032	12	114.3	1106	13	116.4	1189	15
	39	235.3	1237	37	262.7	1035	25	289.2	912	17
		118.8	1015	12	119.1	1094	13	121.2	1176	15
	41	225.6	1186	35	246.9	973	23	280.2	884	16
		123.9	1002	12	128.7	1077	13	126.3	1165	14

Notes) Above table is based on 5K, 4K, 3K temperature gap between chilled water inlet & outlet. (Fouling factor 0.000086m^2 °C/W(0.0001m^2·h·°C/kcal))
You need to contact us in case that temperature gap chilled water or brine is difference from shown above.

※Legend
LCWT : Leaving Chilled Water Temperature (°C)
CCpa : Cooling Capacity (kW)
FR : Flow Rate (L/min)
PD : Pressure Drop (L/min)
PC : Power Consumptuon(kW)
CW : Cooling Water
CDW : Condensing Water
Eva : Evaporator
Con : Condenser

Performance Data

R-407C Type(50Hz)

↘ GWLF 200A~GWLF 700A

Model	LCWT	Brine In/ Outet Temperature (°C)								
		-6/-9°C			-3/-7°C			0/-5°C		
		CCpa.	FR	PD	CCpa.	FR	PD	CCpa.	FR	PD
		PC	L/min	kPa	PC	L/min	kPa	PC	L/min	kPa
	°C	kW	CW	Eva.	kW	CW	Eva.	kW	CW	Eva.
		kW	CDW	Con.	kW	CDW	Con.	kW	CDW	Con.
GWLF 200A	33	308.7	1622	36	332.0	1309	24	362.2	1142	16
		120.8	1231	6	126.0	1313	7	128.4	1406	8
	35	299.3	1573	34	322.3	1270	23	352.5	1112	16
		126.0	1219	6	131.6	1301	7	134.0	1395	8
	37	281.4	1479	32	310.6	1224	22	341.9	1078	15
		137.2	1200	6	137.2	1284	7	139.6	1380	8
	39	270.6	1422	31	292.3	1152	21	331.0	1044	14
		142.8	1185	6	148.4	1263	7	145.6	1366	7
	41	259.3	1363	29	283.0	1115	20	318.1	1003	13
		148.4	1169	6	154.4	1254	7	151.6	1346	7
GWLF 240A	33	353.0	1855	36	379.4	1495	24	415.8	1311	16
		136.8	1404	8	142.8	1497	9	145.6	1609	11
	35	342.1	1798	34	368.5	1453	23	404.4	1275	16
		142.8	1390	8	149.2	1484	9	152.0	1595	11
	37	322.3	1694	33	357.3	1408	22	392.7	1238	15
		155.2	1369	8	155.6	1470	9	158.4	1580	10
	39	309.8	1628	31	344.4	1358	21	381.0	1201	14
		162.0	1352	8	162.0	1452	9	164.8	1565	10
	41	297.4	1563	29	323.8	1276	20	365.7	1153	14
		168.4	1335	8	174.8	1429	9	172.0	1541	10
GWLF 600A	33	888.0	4667	34	953.3	3758	23	1044.6	3294	15
		324.8	3477	16	340.0	3707	18	346.4	3988	20
	35	861.5	4528	32	927.6	3656	22	1016.4	3205	15
		338.8	3441	16	354.0	3674	17	361.2	3949	20
	37	814.9	4283	31	899.2	3544	21	988.3	3116	14
		368.8	3393	15	369.2	3636	17	376.0	3911	19
	39	781.4	4107	29	868.9	3425	20	957.0	3018	13
		384.4	3342	15	384.8	3594	17	392.0	3867	19
	41	750.7	3945	28	817.6	3223	19	924.2	2914	13
		399.6	3298	15	415.2	3534	17	408.8	3821	19
GWLF 700A	33	1014.3	5331	44	1086.6	4283	28	1197.0	3775	20
		381.6	4002	18	398.4	4257	20	406.4	4596	22
	35	985.2	5178	42	1056.7	4165	27	1159.1	3655	19
		397.2	3963	17	414.8	4218	19	423.6	4537	22
	37	931.5	4896	40	1023.7	4035	26	1129.8	3563	18
		432.4	3910	17	432.4	4174	19	442.0	4506	22
	39	891.9	4687	38	965.0	3804	25	1095.0	3453	18
		450.4	3848	17	467.6	4107	19	460.0	4458	21
	41	853.8	4487	36	926.1	3650	24	1052.4	3319	17
		469.2	3793	17	487.2	4051	19	479.2	4391	21

Notes) Above table is based on 5K, 4K, 3K temperature gap between chilled water inlet & outlet. (Fouling factor 0.000086m^2 °C/W(0.0001m^2·h·°C/kcal))
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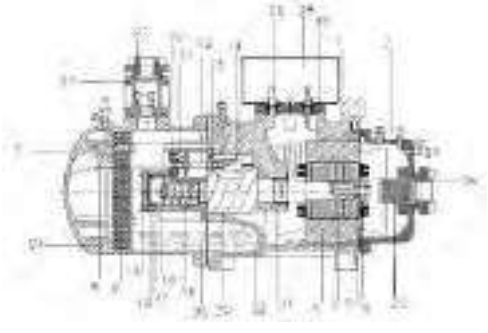
Con : Condenser

Water Cooled Type

Technical Information_

1. Twin Screw Construction



Item	Description
1	Compressor casing
2	Motor casing
3	Oil separator
4	Motor rotor assembly
5	Motor stator assembly
6	Motor rotor washer
7	Motor rotor spacer ring
8	Oil separator baffle
9	Oil separator cartridge
10	Piston
11	Piston spring
12	Piston rod
13	Bearing seat's cover plate
14	Modulation slide valve
15	Slide valve key
16	Discharge bearings
17	Discharge fixed ring
18	Disc spring
19	Bearing lock nut
20	Male rotor
21	Suction bearings
22	Oil filter cartridge
23	Suction filter
24	Oil heater
25	Refrigeration lubricant
26	Suction flange
27	Discharge flange
28	Cable box
29	Power bolt
30	Motor cable cover plate
31	Discharge check valve

2. Operation Process

Basic Construction

A screw male rotor engages with a screw female rotor in the robust casing made of high strength gray cast iron.
A three-phase, two-pole squirrel cage induction motor drives the compressor. The motor rotor is located on the shaft of the male screw rotor.
The screw rotors are precisely situated at both the suction and discharge ends in rolling contact bearings, i.e. axial and radial bearings.

Suction Process

The evaporated refrigerant enters into a V-shaped lobe space between each of the male and female lobes.
This lobe space increases to a maximum size and the refrigerant completely sucked in.

Compression Process

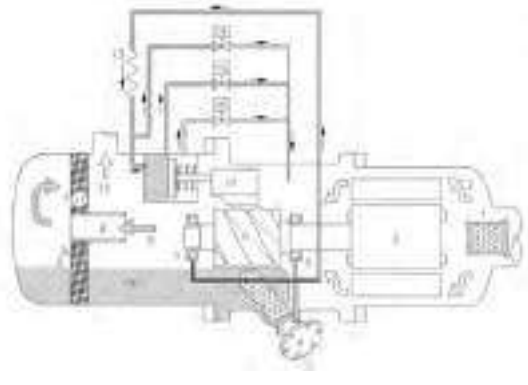
The meshing rotors enclose a working space, which is continuously reduced as it moves in the axial direction.
As the rotors rotate further, the new meshing on the suction side closes the V-shaped lobe space. The lobe space is then constantly reduced by continuing intermeshing of the lobes. And then the compression is processed with lubrication and the pressure increase

Discharge Process

The reduction in lobe space takes place on the lower side of the rotors towards the discharge side. As soon as the peaks of the rotor teeth are free to the outlet port, the vapor is discharged to the high-pressure side and flows to the oil separator where the high-pressure gas will be separated from the lubrication oil.

3. STEP CAPACITY CONTROL SYSTEM

There are three normally closed solenoid valves that are used to control the various required capacity. For the compressor when selecting for 3-steps / 4-steps capacity control system, it is usual to use the sequence of 33% - 66% - 100% / 25.% - 50% - 75% - 100% to load the capacity of compressor. If 25% capacity running is continued for a long time, the problems such as oil return, motor cooling, high discharge temperature are caused. Therefore, we recommend 25% capacity running only for starting of the compressor.

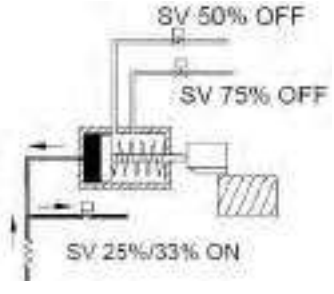


<4-STEP CAPACITY CONTROL SYSTEM>

No.	COMPONENTS	No.	COMPONENTS
1	SUCTION FILTER	10	LUBRICANT
2	GAS IN (LOW PRESSURE)	11	OIL SEPERATOR CARTRIDGE
3	MOTOR	12	GAS OUT(HIGH PRESSURE WITHOUT OIL)
4	OIL FITER CARTRIDGE	13	CAPILIARY
5	SUCTION BEARING	14	SOLENOID VALVE, SV1(25%, 33%)
6	MALE ROTOR	15	SOLENOID VALVE, SV3(50%, 66%)
7	DISCHARGE BEARING	16	SOLENOID VALVE, SV2(75%, -)
8	OIL SEPERATOR BAFFLE	17	SLIDE VALVE
9	GAS OUT(HIGH PRESSURE WITH OIL)		

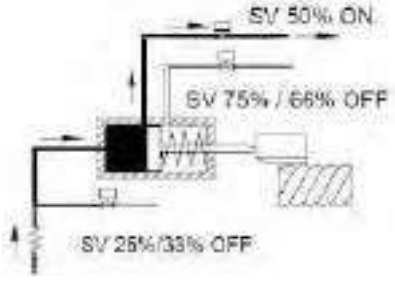
STEP CAPACITY CONTROL SYSTEM	SV1(25%)	SV2(75%)	SV3(50%)
25(33) % for start	ON	OFF	OFF
50(66) % of full load	OFF	OFF	ON
75(-) % of full load	OFF	ON	OFF
100 % of full load	OFF	OFF	OFF

① 25(33) % CAPACITY



When starting the compressor, SV1 solenoid valve is energized and the piston is in 25% (33%) capacity position, so even the oil coming from the oil sump is continued injecting in the cylinder through the capillary, the high pressure oil in the cylinder bypasses directly into the suction port, so the piston are held to its initial position. Be sure to take 30 seconds at least after starting of the compressor at this low capacity stage. After that, the compressor could be loaded gradually.

② 50(66) % CAPACITY

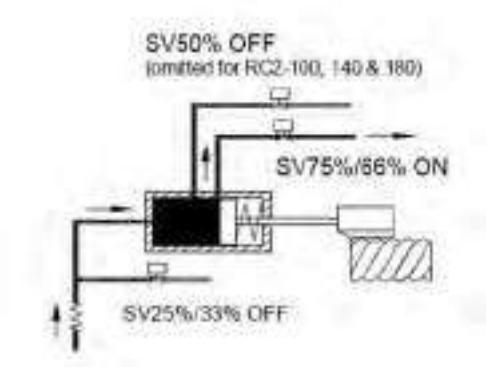


When solenoid valve of SV3 is energized by the temperature controller and the 25%(33%) is de-energized simultaneously. The high pressure oil in the oil sump flows into the cylinder due to the closing 25%(33%) valve that pushes the piston moving toward the position where a hole at exactly 50%(60%) position drains the oil back to the suction port then the piston are held on that position.

Water Cooled Type

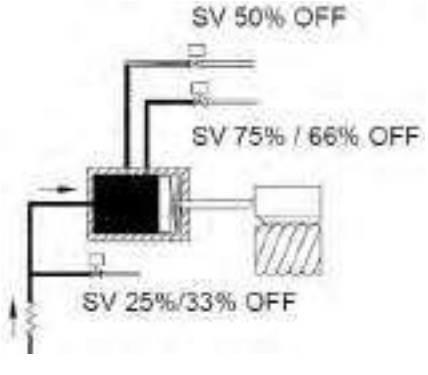
Technical Information_

③ 75% CAPACITY



When solenoid valve of SV2 is energized, the 50% (SV3) solenoid valve will de-energized simultaneously, the high pressure oil will push the piston towards the position where a hole at exactly 75% position drains the oil back to the suction port and the piston will held on that position.

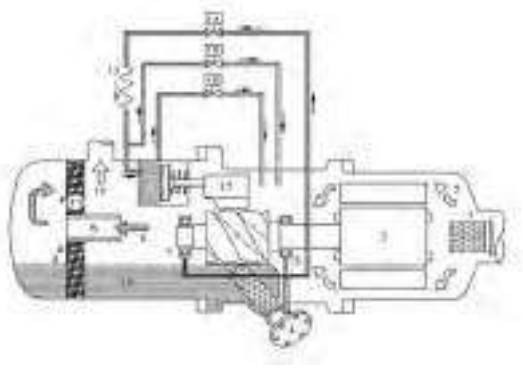
④ 100% FULL LOAD



When all the three modulation solenoid valves are de-energized, the high pressure oil flows into the cylinder continuously to push the piston toward the suction side gradually until the slide valve touches the end side of the compression chamber and the piston also reaches its dead end entirely where no bypass of compression occurred. Hence, the full load is achieved.

4. STEPLESS CAPACITY CONTROL SYSTEM

In continuous (step-less) capacity control system, a normally open solenoid valve (SV2), a normally close solenoid valve (SV1) and another solenoid valve (SV3) are equipped. SV1 is for starting solenoid valve of 25%, and refrigeration capacity control can be modulated within 50%~100% by SV2 and SV3 solenoid valves controlled by the CHILLING UNIT temperature controller. Therefore, it is available to control the capacity output in stable condition by modulating the inlet of SV2 and SV1 alternatively.



< CONTINUOUS (STEP-LESS) CAPACITY CONTROL SYSTEM >

No.	COMPONENTS	No.	COMPONENTS
1	SUCTION FILER	10	LUBRICANT
2	GAS IN(LOW PRESSURE)	11	OIL SERPERATOR CARTRIDGE
3	MOTOR	12	GAS OUT(HIGH PRESSURE WITHOUT OIL)
4	OIL FILTER CARTRIDGE	13	CAPILLIARY
5	SUCTION BEARING	14	SOLENOID VALVE SV2(INCREASE)
6	MALE ROTOR	15	SOLENOID VALVE, SV1(START)
7	DISCHARGE BEARING	16	SOLENOID VALVE, SV3(DECREASE)
8	DISCHARGE SILENCER	17	SLIDE VALVE
9	GAS OUT(HIGH PRESSURE WITH OIL)		

STEP-LESS COMPRESSOR CAPACITY CONTROL	SV1(NC)	SV2(NC)	SV3(NC)
START	ON	OFF	ON
LOADING	OFF	ON	OFF
UNLOADING	OFF	OFF	ON
STABLE	OFF	OFF	OFF

Water Cooled Type

Technical Information_

① STARTING

When starting the cooling unit, starting solenoid valve (SV1) and decrease solenoid valve (SV3) are energized simultaneously for restarting delay prevention time. And the lubrication oil supplied to the cylinder is bypassed by the solenoid valve SV1 and SV3. The piston is shifted to the left end and then the cooling unit is started. At this time, the running capacity of the cooling unit is 25%.

② LOADING

The capacity is increased to the full without bypass of lubrication oil by opening only the increase solenoid valve (SV2) and closing the other solenoids valves. The lubrication oil pushes the piston to the right and therefore the slide valve is closed increasing the capacity.

③ UNLOADING

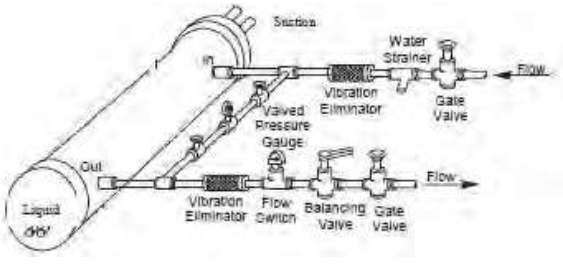
The decrease solenoid valve(SV3) is open by the micro controller. The lubrication oil is bypassed by the solenoid valve(SV3) and the piston is pushed to the left. Hence the capacity decreases to the 50%.

④ SYSTEM STABLIZATION

If the desired temperature is obtained, the solenoid valves SV1, 2,3 are closed and they stop the flow of high pressure oil to fix the slide valve and maintain the present capacity. At this time, the capacity is within 50~100%.

5. Water Piping Installation

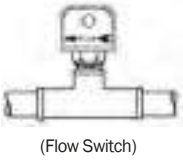
1) Vibration eliminators to reduce vibration and noise transmission to the building.
2) Shut off valves to isolate the unit from the piping system during unit servicing.
3) Manual or automatic air vent valves at the high points of the system so that the air can be vented.
4) Make necessary arrangements to install a water flow switch on the leaving water connectio0n to ensure adequate water flow and wire it with the terminals provided in the unit control panel.
5) Temperature and pressure indicators located at the unit ti aid in unit servicing.
6) Prior to insulating the piping and filling the system a preliminary leak check should be made.



<Typical Chilled Water Piping>

6. Flow Switch

Flow switch should be installed before starting in the outlet of the evaporator and condenser, where vortex is not generated. Generally, a flow switch of 25 mm(1 inch)~200 mm(8 inch) is used. The minium water flow rate is shown when the flow switch is installed as below. Refer to the electric wiring diagram for getting electric wiring of flow switch.



(Flow Switch)

Nominal Size mm (inch)	Min. Water flow liter/min(liter/sec)
125 (5)	220 (3.7)
150 (6)	300 (5.0)
200 (8)	530 (8.8)

Memo

Memo

Kiturami BUMYANG

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