SANYO

Hot water / Direct Fired Single & Double Effect

LiBr Absorption Chiller/Heater

Comprehensive Utilization Of Energy

- *Solar Energy*
- *Generator*
- *Well, River and Sea Water*
- *Natural Gas*
- *Industry Waste Hot Water*

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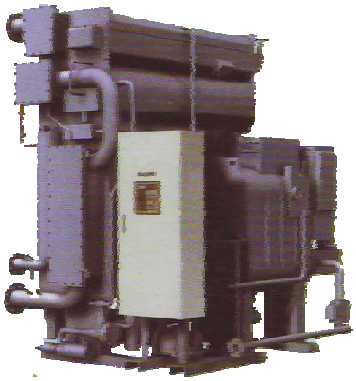

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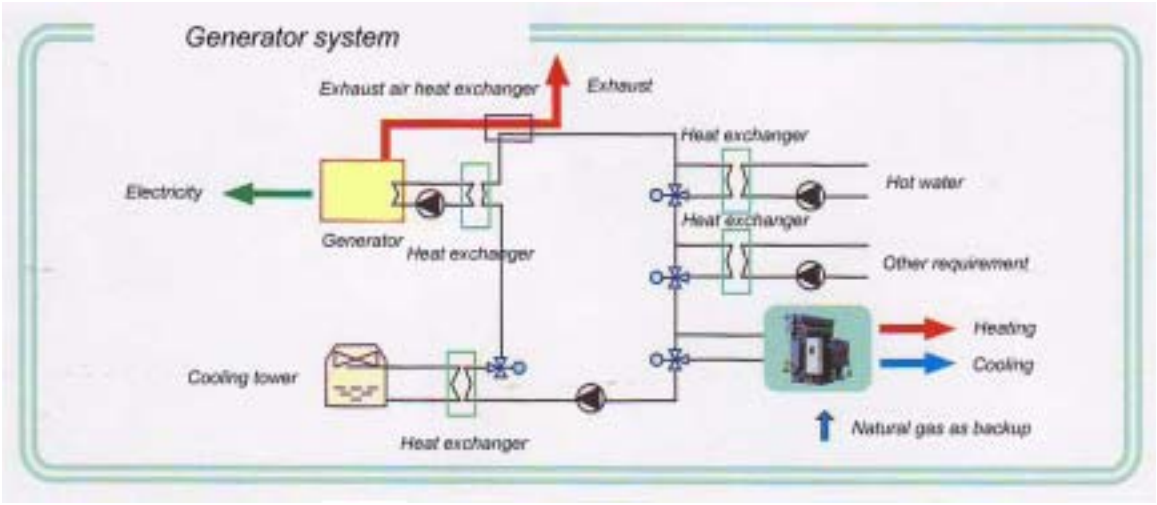
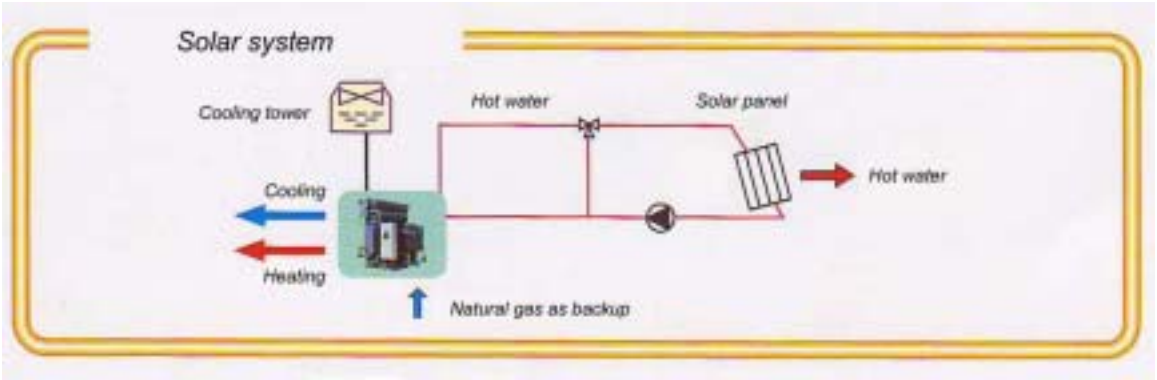
NEW CONCEIPT

Hot water / Direct Fired Single & Double Effect LiBr Absorption Chiller/Heater **is perfectly combined between Direct-Fired double effect and Hot water fired single effect in order of comprehensive utilizing of energy.**

Priority utilizing hot water as heat source during cooling, fuel is as backup to ensure continuous and steady cooling supply during lack of heat source.

- ***Merit 1 COMPREHENSIVE UTILIZING OF ENERGY***
- ***Merit 2 WIDE APPLICATION***
- ***Merit 3 INTELLEGENT CONTROL SYSTEM***
- ***Merit 4 SIMPLIZING DESIGN AND INSTALLATION, MORE ECONOMIC***
- ***Merit 5 LOW RUNNING COST, SAVING ENERGY, EARLY PAYBACK***
- ***Merit 6 HEALTHY***





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Specifications

Model		LDG-**M	12	14	22	24	32
Cooling capacity (single & double)		KW(USRT)	380(108)	570(162)	760(216)	1,013(288)	1,266(360)
Cooling capacity (single effect)		KW(USRT)	190(54)	285(81)	380(108)	506(144)	633(180)
Heating capacity		KW(kcal/h)	353(303,600)	530(455,400)	706(607,200)	941(809,600)	1,177(1,012,00
Chilled water system	Inlet/outlet temp.	℃	12~7				
	Flow rate	ton/h	65.3	98	131	174	218
	Connection	A	100		125	150	200
Warm water system	Inlet/outlet temp.	℃	55.4~60				
	Flow rate	ton/h	65.3	98	131	174	218
	Connection	A	100		125	150	200
Cooling water system	Inlet/outlet temp.	℃	31~36.8				
	Flow rate	ton/h	120	180	240	320	400
	Connection	A	125		150	200	
Hot water system	Inlet/outlet temp.	℃	88~83				
	Flow rate	ton/h	46.7	70	93.3	124	156
	Connection	A	100		125		150
Fuel consumption (Cooling/Heating)	Light oil	Kg/h	28.4/31.5	42.6/47.3	56.8/63.1	75.7/84.1	94/104.4
	City gas	Nm^3/h	76.8/85.3	115.1/127.9	153.5/170.5	204/7/227.4	255.8/284.2
	Natural gas	Nm^3/h	26.6/29.5	39.8/44.2	53/58.9	70.7/78.5	88.4/98.2
Flue connection		A	280×210		310×310		360×310

Model		LDG-**M	41	42	51	52	53
Cooling capacity (single & double effect)		KW(USRT)	1,424(405)	1,582(450)	1,772(504)	1,994(567)	2,215(630)
Cooling capacity (single effect)		KW(USRT)	714(203)	791(225)	886(252)	999(284)	1,108(315)
Heating capacity		KW(kcal/h)	1,324(1,138,500)	1,471(1,265,000)	1,674(1,416,800)	1,853(1,593,900)	2,059(1,771,000)
Chilled water system	Inlet/outlet temp	℃	12~7				
	Flow rate	ton/h	245	272	305	343	381
	Connection	A	200				
Warm water system	Inlet/outlet temp.	℃	55.4~60				
	Flow rate	ton/h	245	272	305	343	381
	Connection	A	200				
Cooling water system	Inlet/outlet temp.	℃	31~36.8				
	Flow rate	ton/h	450	500	560	630	700
	Connection	A	250		300		
Hot water system	Inlet/outlet temp.	℃	88~83				
	Flow rate	ton/h	175	194	218	245	272
	Connection	A	200				
Fuel consumption (Cooling/Heating)	Light oil	Kg/h	105.8/117.5	117.5/130.5	133.7/148.6	150.4/167.1	164.6/182.9
	City gas	Nm^3/h	287.7/319.7	319.8/355.3	369.4/410.4	415.4/461.5	454.7/505.2
	Natural gas	Nm^3/h	99.5/110.5	110.4/122.7	127.6/141.8	143.5/159.4	157.1/174.5
Flue connection		A	410×310		350×500		

Note:

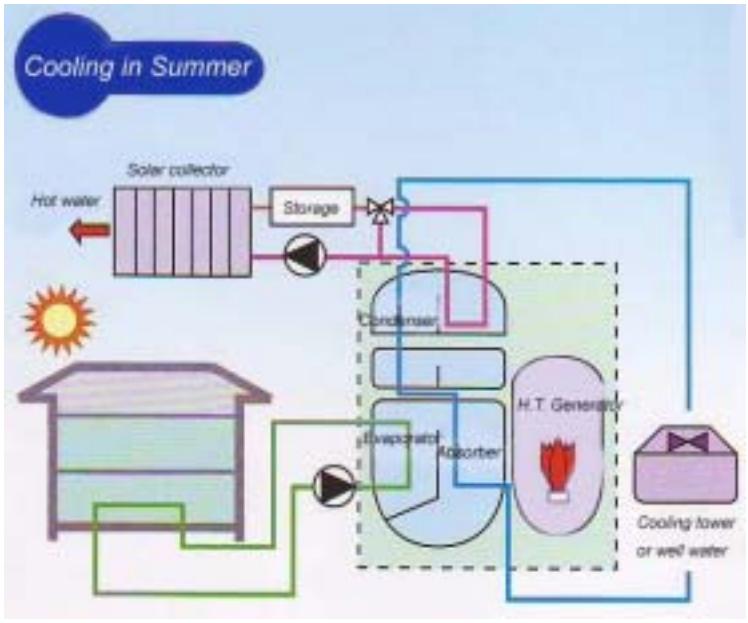
1. 1 USRT = 3.52 kw (3,024kcal/h);
2. “A” stands for nominal diameter, unit is mm;
3. The heat value in the table are low heat values: light oil 10,400Kcal/h, city gas 3,800Kcal/Nm^3, natural gas 11,000Kcal/Nm^3;
4. Max. working pressure for chilled/cooling/warm/hot water system is 8Kg/cm^2 · G;
5. The values in above table may be modified without notice.

Solar System Example

Energy: Natural Gas (or Light oil), Solar

Function:

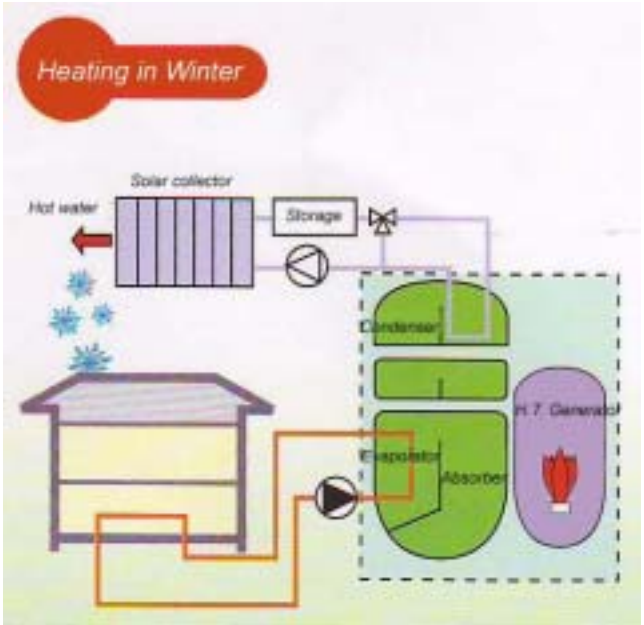
A. Cooling in summer



Character: 1.Solar + Natural Gas as backup;

2.Pririoty utilizing the hot water produced by Solar as heat source, Natural Gas works as backup, if it cannot fit the Load of cooling;

B. Heating in winter



Character: **Utilizing natural gas as heat source to realize heating in winter**