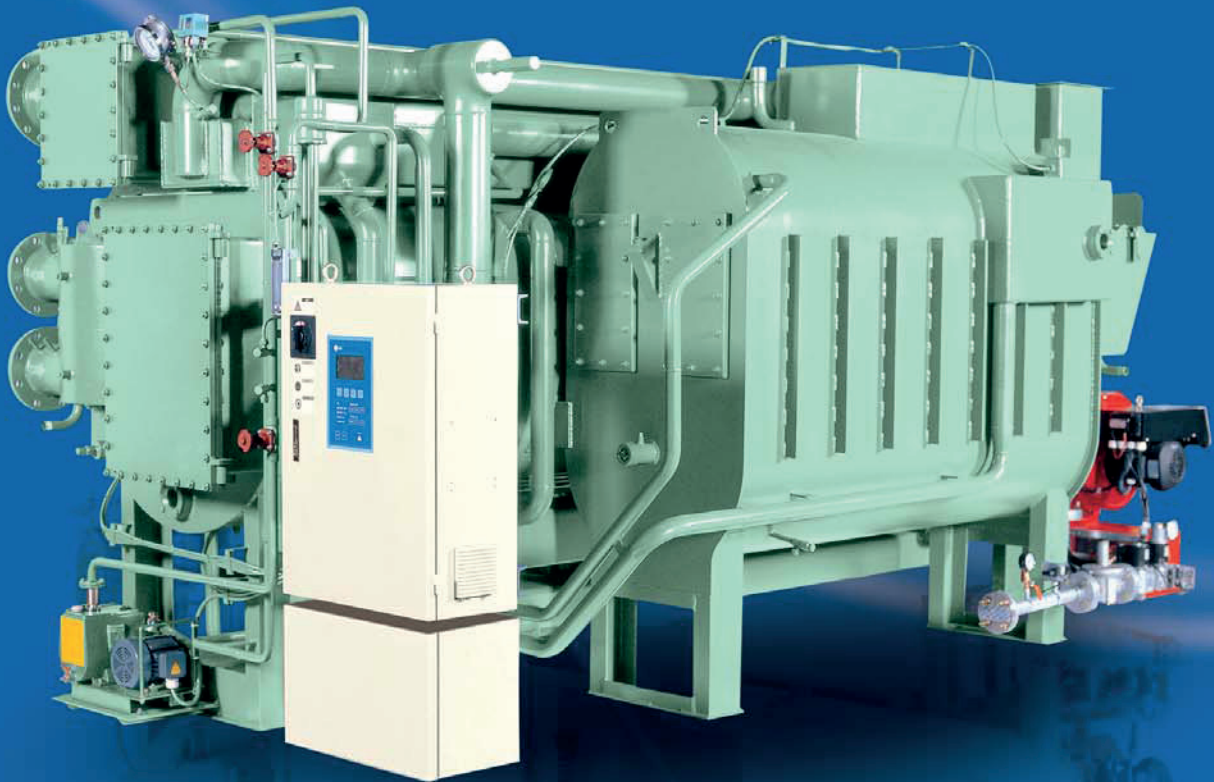




Absorption Chiller

• Direct Fired Absorption Chiller



HORM[®]
Eng. Air Conditioning.co

World's Highest Efficiency Direct Fired Absorption Chiller

World Highest Level!!

COP 1.36

Features

High Efficient Heat Transfer Tube

Newly designed high performance tube enabled 29% of heat transfer rate increase and increased LiBr Solution concentration range at TG/Absorber so to reduce heat loss to cooling water with less heat input at HTG.

High Performance Solution Heat Exchanger

Replacing conventional heat exchanger to plate type, Low and High temperature heat exchanger achieves more heat transfer rate so to realize high efficient with compact in size.

Advanced High efficiency technologies

- Applied small size (∅12.7) of high performance tube
- Maximized absorption power by 2 Stage-Tray
- 20% improved performance by welding type plate heat exchanger

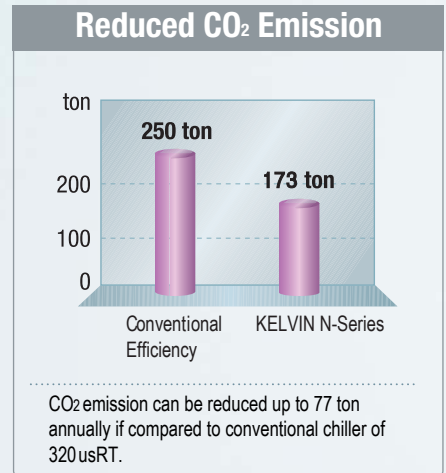
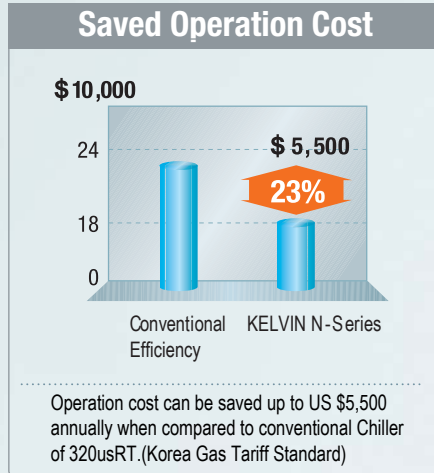
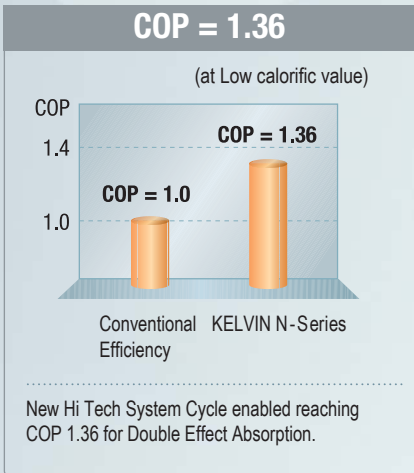
Challenging Double Effect Absorption Chiller's Limit of COP=1.36

- Endless innovative technology enabled world to experience 'ODP zero Highly Globe Friendly KELVIN's new High Efficient Double Effect Direct Fired Absorption Chiller.
- Our Eagerness to hold our 40 years Resolution 'Contribute to the World through Advanced Technology', made us create 'Energy Saving' products.

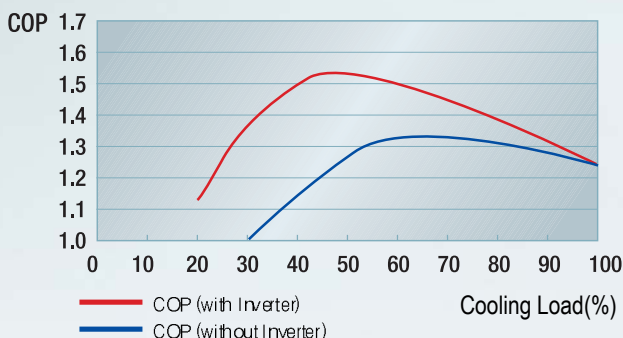
Eco-Friendly chiller



Features of New KELVIN High Efficiency Absorption Chiller



Maximum COP 1.53



Since most aren't in full load operation, Part load efficiency is more important. KELVIN enabled high part load efficiency with new optimized flow system. In every load requirement, inverter controlled solution pump optimizes system as per calculated frequency from HTG temperature and cooling load.

Operational Condition

1. Chilled Water Outlet (7 °C)
2. Cooling Water Inlet

Load (%)	100%	50%	30%
Temp. (°C)	32 °C	27 °C	25 °C



Double Effect Direct Fired Absorption Chiller



Double Effect Steam Fired Absorption Chiller



Single Effect Hot Water Fired Absorption Chiller

Features

High performance purge system with High vacuum hold structure

Dual injector powered high performance purge system enables quicker and effective purging in all operation condition.

KELVIN Absorption Chiller has less welding surfaces and points which to secure high vacuum state.

Series flow design

Compare to Parallel flow designed chillers, the series flow designed chillers have benefits of:

- Easiness and Simplicity of Absorbent Flow Control
- Less Condenser Water Flow Rate
- Convenient Maintenance
- Less Steam Consumption

Compact in size and weight

Smaller installation space with better mobility, KELVIN Chiller is designed to use less amount of absorbent, refrigerant with high performance operation.

User Interface Designed Microprocessor Chiller Control Manager

Enables Optimum Energy Saving Operation in all Condition

PID Control Logic

A well known for its sensitive superior response, a PID control logic detects differences of 0.01 °C temperature change at chilled/cooled water outlets to control combustion simultaneously so to meet minimized reaching time of desired temperature.

It also minimizes fluctuating differences of temperature so to be chiller at stable energy consumption operation.

Automatic Anti Crystallization Safety Operation

All time monitoring LiBr-Water solution function enables ;

- LiBr-Water Solution's Concentration Level as Optimum state to be safe from Crystallization.
- After or having crystallization, Chiller itself senses the status and controls temperature distribution throughout the system by controlling combustion amount.

Self Diagnostic/Maintenance Notice Alarm

The Microprocessor has a self diagnosis function so that the processor is capable of preventing an in efficient operation and unexpected breakdown of the system.

Accumulation/Management Function of Operation Data

The Microprocessor has data memories of regular operation for twenty years, malfunctioning for 301 times, and temperature for 10.6 days, respectively. These memory capacities can regulated the operation of the system, and maintain the system precisely based on the accumulated data.

Chiller Control Manager Display

Full color touch panel with Microsoft Window ® based control manager available as an option



Interface with Building Automation System

- ModBus, Bac net, TCP/IP connection Ready
- RS232C/RS485 communication protocol

Controlling of Eight Units in Maximum with Single S/W Package

It is possible to control up to eight units in maximum with single S/W package by utilizing the communication ports coded EIA-RS 232 and RS-485 as well.

This function makes available to apply the system to the huge buildings and manufacturing factories.

Saving & Display of Data

1. Temperature of chilled water inlet
2. Temperature of chilled water outlet
3. Temperature of hot water outlet
4. Temperature of hot water inlet
5. Temperature of cooling water inlet
6. Temperature of cooling water outlet
7. Temperature of high-temperature generator
8. Temperature of low-temperature generator
9. Condenser temperature
10. Temperature of exhausted gas
11. Temperature of steam drain
12. Absorbent density
13. Operation time of unit
14. Operation time of refrigerant pump
15. Operation time of absorbent pump
16. Combustion time
17. Frequency of running & stopping of unit
18. Frequency of running & stopping of refrigerant pump
19. Frequency of running & stopping of absorbent pump
20. Frequency of running & stopping of combustion

Display

21. Control valve
22. Setting temperature of chilled water
23. Setting temperature of hot water

Warning

24. Burner blower monitor
25. Running of cooling water pump
26. Running of hot water pump
27. Fan interlock
28. Gas pressure fault

Signals of Abnormal Condition

1. Combustion signal
2. High-temperature generator fluid level low
3. Operation mode
4. Absorbent pump 1 thermal relay
5. Absorbent pump 2 thermal relay
6. Burner blower thermal relay
7. Refrigerant pump thermal relay
8. Oil pump thermal relay
9. Cooling water pump interlock
10. Chilled & hot water pump interlock
11. Chilled water pump interlock
12. Intake & exhaust fan interlock
13. Sensor of chilled water inlet temperature
14. Sensor of chilled water outlet temperature
15. Sensor of hot water inlet temperature
16. Sensor of hot water outlet temperature
17. Sensor of cooling water inlet temperature
18. Sensor of cooling water outlet temperature
19. Sensor of high-generator temperature
20. Sensor of low-generator temperature
21. Sensor of condenser temperature
22. Sensor of exhausted gas temperature
23. Sensor of steam drain temperature
24. High-temperature generator pressure high
25. Chilled & hot water flow rate abnormal
26. Cooling water flow rate abnormal
27. Chilled water inlet/outlet temperature low
28. Hot water temperature high
29. Cooling water temperature high
30. Exhausted gas temperature high
31. High-generator temperature high

Direct Fired Absorption Chiller

N-Series

Model		Unit	KLV-N010S	KLV-N012S	KLV-N015S	KLV-N018S	KLV-N021S	KLV-N024S	KLV-N028S	KLV-N032S
Nominal Cooling Capacity		usRT	100	120	150	180	210	240	280	320
Nominal Heating Capacity		kW	352	422	528	633	739	844	985	1,125
		kcal/h	253,000	303,600	379,500	455,400	531,300	607,200	708,400	809,600
		kW	294	353	441	530	618	706	824	941
Chilled Water Data	Inlet/Outlet Temp	°C	12 → 7							
	Flow Rate	m³/h	60.5	72.6	90.7	108.9	127.0	145.2	169.3	193.5
	Connection	A	100							
Hot Water Data	Inlet/Outlet Temp	°C	55.8 → 60.0							
	Flow Rate	m³/h	60.5	72.6	90.7	108.9	127.0	145.2	169.3	193.5
	Connection	A	100							
Cooling Water Data	Inlet/Outlet Temp	°C	32 → 37.2							
	Flow Rate	m³/h	100	120	150	180	210	240	280	320
	Connection	A	125							
Electrical Data	Phase/Volts/Hz		3 ∅, 220V/380V/440V, 50Hz/60Hz							
	Total Current	A	13.0	15.4		18.5		19.9		25.6
	Wire Size	mm²			4.0			6.0		10.0
	Power	kVA	8.5	10.1		12.2		13.1		16.9
	Absorbent Pump 1	kW(A)		1.5(5.43)			2.4(6.4)			3.4(10.3)
	Absorbent Pump 2	kW(A)		0.4(1.8)			1.2(4.0)			1.5(5.5)
	Refrigerant Pump	kW(A)				0.2(1.13)				0.4(1.42)
	Purge Pump	kW(A)					0.4(1.6)			
	Burner Blower(GAS)	kW(A)	0.75(2.2)			1.5(4.6)				2.2(6.0)
	Dimension	Length(L)	mm	3,340	3,980	3,930	4,130	4,200	4,530	4,790
Width(W)		mm		1,910		2,015		2,200		2,235
Height(H)		mm			2,130			2,280		
Weight	Operating	Ton	4.8	5.1	6.1	6.7	7.9	8.2	9.2	9.8
	Rigging	Ton	4.0	4.2	5.1	5.6	6.4	7.6	8.1	8.7
	Connection	A	40 (4,000mmAq 21/2)							
Fuel Consumption (GAS)	Cooling	Nm³/h	23.8	28.5	35.6	42.8	49.9	57.0	66.5	76.0
	Heating	Nm³/h	32.1	38.5	48.1	57.7	67.4	77.0	89.8	102.7

Model		Unit	KLV-N036S	KLV-N040S	KLV-N045S	KLV-N050S	KLV-N056S	KLV-N063S	KLV-N070S	
Nominal Cooling Capacity		usRT	360	400	450	500	560	630	700	
Nominal Heating Capacity		kW	1,266	1,407	1,583	1,758	1,969	2,216	2,462	
		kcal/h	910,800	1,012,000	1,138,500	1,265,000	1,416,800	1,593,900	1,771,000	
		kW	1,059	1,177	1,324	1,471	1,647	1,853	2,059	
Chilled Water Data	Inlet/Outlet Temp	°C	12 → 7							
	Flow Rate	m³/h	217.7	241.9	272.2	302.4	338.7	381.0	423.4	
	Connection	A	150							
Hot Water Data	Inlet/Outlet Temp	°C	55.8 → 60.0							
	Flow Rate	m³/h	217.7	241.9	272.2	302.4	338.7	381.0	423.4	
	Connection	A	150							
Cooling Water Data	Inlet/Outlet Temp	°C	32 → 37.2							
	Flow Rate	m³/h	360	400	450	500	560	630	700	
	Connection	A	200							
Electrical Data	Phase/Volts/Hz		3 ∅, 220V/380V/440V, 50Hz/60Hz							
	Total Current	A	33.2			32.9		38.8		40.2
	Wire Size	mm²				16.0				26.5
	Power	kVA	21.9			21.7		25.6		26.5
	Absorbent Pump 1	kW(A)			3.4(10.3)				6.6(16.2)	
	Absorbent Pump 2	kW(A)		1.5(5.5)				2.0(5.2)		
	Refrigerant Pump	kW(A)					0.4(1.42)			
	Purge Pump	kW(A)					0.4(1.6)			
	Burner Blower(GAS)	kW(A)			5.5(13.6)					7.5(15.0)
	Dimension	Length(L)	mm	4,915	5,050	5,325	5,525	5,435	5,840	6,025
Width(W)		mm		2,480		2,720		3,280		
Height(H)		mm		2,535		2,790		3,240		
Weight	Operating	Ton	12.3	12.7	15.2	15.6	22.0	23.7	25.5	
	Rigging	Ton	10.8	11.1	13.3	13.4	19.3	20.8	22.3	
	Connection	A	50 (4,000mmAq 21/2)							
Fuel Consumption (GAS)	Cooling	Nm³/h	85.5	95.0	106.9	118.8	133.0	149.7	166.3	
	Heating	Nm³/h	115.5	128.3	144.4	160.4	179.7	202.1	224.6	

Note 1. 1.usRT=3.52kW(3,024Kcal/h) 2. Tube and Water Side Pressure (Chilled & Cooled Water Circuit) : 10Kgf/cm²(981kPa) 3. Standard Gas Pressure : 400mmAq
4. Total Current are based on 3Ph 380V 50Hz 5. Fuel Consumption rate is based on low calorific value 6. Specifications are subject to change without prior notice

P-Series

Model		Unit	KLV - P50AU	KLV - P60AU	KLV - P70AU	KLV - P80AU
Nominal Cooling Capacity		usRT	50	60	70	80
Nominal Heating Capacity		10 ³ kcal/h	182	218	254	291
Chilled Water	Flow Rate	m³/h	30.3	36.3	42.4	48.4
	Pressure Drop	mAq	3.0	3.3	2.4	2.5
	Connection Size	A	3			
	Connection	A	3			
Hot Water	Flow Rate	m³/h	30.3	36.3	42.4	48.4
	Pressure Drop	mAq	2.6	2.9	2.1	2.2
	Connection Size	A	3			
Cooling Water System	Flow Rate	m³/h	50	60	70	80
	Pressure Drop	mAq	4.4	5.2	3.9	4.2
	Connection Size	A	4			
Electrical Data	Phase/Volts/Hz		3 ∅, 220V/380V/440V, 50Hz/60Hz			
	Absorbent Pump	kW			1.2(4.1/3.0A)	
	Refrigerant Pump	kW			0.2(1.1/1.13A)	
	Purge Pump	kW			0.4(1.3A)	
	Burner Blower	kW	0.37(1.0A)			0.74(2.3A)
	Control Circuit	kVA			0.3(0.9A)	
	Total Current	A			9	
	Wire Size	mm²			3.5	
Dimension	Length(L)	mm	2,079			2,476
	Width(W)	mm	1,490			1,699
	Height(H)	mm	1,852			
Weight	Operating	TON	3.2	3.4	3.8	4.0
	Rigging	TON	2.9	3.1	3.5	3.7
	Shipment		One-Section			
Fuel Consumption	Gas	11,000kcal/Nm ³ (Cooling)	14.5	17.4	20.3	23.2
		11,000kcal/Nm ³ (Heating)	20.0	23.9	27.9	31.9
	Diesel	10,960kcal/Nm ³ (Cooling)	14.0	16.9	19.7	22.4
		10,960kcal/Nm ³ (Heating)	19.3	23.3	27.0	30.9
		Flue Connection Size	mm	190 x 110		
Clearance For Tube Removal	mm	1,700			2,200	

Note 1. 1.usRT=3.52kW(3,024Kcal/h) 2. Tube and Water Side Pressure (Chilled & Cooled Water Circuit) : 5Kgf/cm²(490kPa) 3. Standard Gas Pressure : 200mmAq
4. Total Current are based on 3Ph 380V 50Hz 5. Specifications is subject to change without prior notice



S-Series

Model	Unit	KLV-S010S	KLV-S012S	KLV-S015S	KLV-S018S	KLV-S021S	KLV-S024S	KLV-S028S	KLV-S032S	KLV-S036S	KLV-S040S	KLV-S045S	KLV-S050S				
Nominal Cooling Capacity	usRT	100	120	150	180	210	240	280	320	360	400	450	500				
Nominal Heating Capacity	M cal/h	253	304	380	529	531	607	708	810	911	1,012	1,139	1,265				
Temperature	°C	Cooling Mode 12 - 7 °C (Heating Mode 55.8 - 60 °C)															
Chilled(Hot) Water Data	Water Flow Rate	m³/h	60.5	72.6	90.7	108.9	127.0	145.2	169.3	193.5	217.7	241.9	272.2	302.4			
	Pressure Drop	mAq	6.5	6.6	8.0	8.3	7.5	7.9	5.1	5.5	5.8	6.1	5.2	5.5			
	Connection Size	B(inch)	4	4	4	4	5	5	6	6	6	6	8	8			
Temperature	°C	32 - 37.5 °C															
Cooling Water Data	Water Flow Rate	m³/h	100	120	150	180	210	240	280	320	360	400	450	500			
	Pressure Drop	mAq	3.9	4.4	6.5	7.7	5.6	6.2	10.9	12.1	8.7	9.4	10.3	11.2			
	Connection Size	B(inch)	5	5	5	5	6	6	8	8	8	8	10	10			
Electrical Data	Phase/Volts/Hz	3 ∅, 220V/380V/440V, 50Hz/60Hz															
	Total Electric Current	A	11.83	14.23	14.23	14.23	14.23	15.63	19.72	19.72	27.32	27.32	27.32	27.32			
	Gas	Wire Size	mm²	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	5.5	5.5			
		Electric Consumption	kVA	7.3	7.3	7.7	8.6	8.6	8.6	11.9	11.9	11.9	13.9	13.9			
	Oil	Total Electric Current	A	12.63	16.03	16.03	16.03	16.03	17.43	21.52	21.52	29.12	29.12	29.12			
		Wire Size	mm²	3.5	3.5	3.5	3.5	3.5	3.5	5.5	5.5	8.0	8.0	8.0			
	Electric Consumption	kVA	7.7	7.7	7.7	9.7	9.7	9.7	15.1	15.1	17.2	17.2	17.2	17.2			
	Absorbent Pump No.1	kW(A)	2.4(6.4)	2.4(6.4)	2.4(6.4)	2.4(6.4)	2.4(6.4)	2.4(6.4)	3.4(10.2)	3.4(10.2)	3.4(10.2)	3.4(10.2)	3.4(10.2)	3.4(10.2)			
	Absorbent Pump No.2	kW(A)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a			
	Refrigerant Pump	kW(A)	0.2(1.13)	0.2(1.13)	0.2(1.13)	0.2(1.13)	0.2(1.13)	0.2(1.13)	0.4(1.42)	0.4(1.42)	0.4(1.42)	0.4(1.42)	0.4(1.42)	0.4(1.42)			
	Purge Pump	kW(A)	0.4(1.6)	0.4(1.6)	0.4(1.6)	0.4(1.6)	0.4(1.6)	0.4(1.6)	0.4(1.6)	0.4(1.6)	0.4(1.6)	0.4(1.6)	0.4(1.6)	0.4(1.6)			
Bummer Blower(Gas)	kW(A)	0.75(2.2)	1.5(4.6)	1.5(4.6)	1.5(4.6)	1.5(4.6)	2.2(6.0)	2.2(6.0)	2.2(6.0)	5.5(13.6)	5.5(13.6)	5.5(13.6)	5.5(13.6)				
Bummer Blower(Oil)	kW(A)	0.75(2.2)	1.5(4.6)	1.5(4.6)	1.5(4.6)	1.5(4.6)	2.2(6.0)	2.2(6.0)	2.2(6.0)	5.5(13.6)	5.5(13.6)	5.5(13.6)	5.5(13.6)				
Oil Pump(Oil)	kW(A)	0.24(0.8)	0.55(1.8)	0.55(1.8)	0.55(1.8)	0.55(1.8)	0.55(1.8)	0.55(1.8)	0.55(1.8)	0.55(1.8)	0.55(1.8)	0.55(1.8)	0.55(1.8)				
Dimension	Length(L)	mm	2,700	2,700	3,720	3,720	3,740	3,740	4,780	4,780	4,890	4,890	4,870	4,870			
	Depth(W)	mm	1,990	1,990	1,990	2,010	2,190	2,210	2,170	2,170	2,310	2,350	2,570	2,570			
	Height(H)	mm	2,030	2,030	2,030	2,030	2,300	2,300	2,300	2,300	2,540	2,540	2,765	2,765			
Weight	Operating	Ton	4.8	5.1	6.1	6.7	7.9	8.2	9.2	9.8	12.3	12.7	15.2	15.6			
	Rigging	Ton	4.0	4.2	5.1	5.6	6.4	7.6	8.1	8.7	10.8	11.1	13.3	13.4			
Fuel Consumption	Gas	Connection Size	B(inch)	One-Section													
		11,000kcal/Nm³(Cooling/Heating)	Nm³/h	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	2	2	2		
	Oil	Connection Size	B(inch)	One-Section													
		Diesel(Cooling/Heating)	kg/h	15	15	15	15	15	15	15	15	15	15	15	15		
	Flue Connection Size	mm	280 x 210				310 x 310				360 x 310				410 x 310		
Clearance For Tube Removal	mm	2,400	2,400	3,400	3,400	3,400	3,400	4,500	4,500	4,500	4,500	4,500	4,500	4,500			

Model	Unit	KLV-S056S	KLV-S063S	KLV-S070S	KLV-S080S	KLV-S090S	KLV-S100S	KLV-S110S	KLV-S120S	KLV-S130S	KLV-S140S	KLV-S150S			
Nominal Cooling Capacity	usRT	560	630	700	800	900	1,000	1,100	1,200	1,300	1,400	1,500			
Nominal Heating Capacity	M cal/h	1,417	1,594	1,771	2,024	2,277	2,530	2,783	3,036	3,289	3,542	3,795			
Temperature	°C	Cooling Mode 12 - 7 °C (Heating Mode 55.8 - 60 °C)													
Chilled(Hot) Water	Water Flow Rate	m³/h	339.0	381.0	423.0	484.0	544.0	605.0	665.0	726.0	786.0	847.0	907.0		
	Pressure Drop	mAq	4.6	6.2	8.1	4.7	6.4	8.4	6.2	7.9	9.8	8.0	9.8		
	Connection Size	B(inch)	8	8	8	10	10	10	12	12	12	14	14		
Temperature	°C	32 - 37.5 °C													
Cooling Water	Water Flow Rate	m³/h	560	630	700	800	900	1,000	1,100	1,200	1,300	1,400	1,500		
	Pressure Drop	mAq	7.1	9.4	12.1	8.4	11.1	14.3	8.8	10.9	13.4	12.3	14.6		
	Connection Size	B(inch)	10	10	10	14	14	14	16	16	16	16	16		
Electrical Data	Phase/Volts/Hz	3 ∅, 220V/380V/440V 50Hz/60Hz													
	Total Electric Current	A	40.42	41.82	41.82	40.62	49.62	57.32	69.4	69.4	69.4	69.4	69.4		
	Gas	Wire Size	mm²	14.0	14.0	14.0	14.0	14.0	22.0	22.0	38.0	38.0	38.0		
		Electric Consumption	kVA	24.4	24.4	24.4	27.2	33.4	33.4	49.4	49.4	49.4	49.4		
	Oil	Total Electric Current	A	42.22	46.42	46.42	45.22	54.22	61.92	74	74	74	74		
		Wire Size	mm²	14.0	14.0	14.0	14.0	22.0	22.0	38.0	38.0	38.0	38.0		
	Electric Consumption	kVA	25.5	25.5	27.6	30.1	36.0	36.0	52.0	52.0	52.0	52.0			
	Absorbent Pump No.1	kW(A)	6.6(16.2)	6.6(16.2)	6.6(16.2)	6.6(16.2)	7.5(25.0)	7.5(25.0)	7.5(25.0)	7.5(25.0)	7.5(25.0)	7.5(25.0)	7.5(25.0)		
	Absorbent Pump No.2	kW(A)	2.0(6.8)	2.0(6.8)	2.0(6.8)	2.2(5.8)	2.2(5.8)	2.2(5.8)	5.5(14.5)	5.5(14.5)	5.5(14.5)	5.5(14.5)	5.5(14.5)		
	Refrigerant Pump	kW(A)	0.4(1.42)	0.4(1.42)	0.4(1.42)	0.4(1.42)	0.4(1.42)	0.4(1.42)	1.5(4.0)	1.5(4.0)	1.5(4.0)	1.5(4.0)	1.5(4.0)		
	Purge Pump	kW(A)	0.4(1.6)	0.4(1.6)	0.4(1.6)	0.4(1.6)	0.4(1.6)	0.4(1.6)	0.75(2.4)	0.75(2.4)	0.75(2.4)	0.75(2.4)	0.75(2.4)		
Bummer Blower(Gas)	kW(A)	5.5(13.6)	7.5(15.0)	7.5(15.0)	7.5(15.0)	7.5(15.0)	11(22.7)	11.0(22.7)	11.0(22.7)	11.0(22.7)	11.0(22.7)	11.0(22.7)			
Bummer Blower(Oil)	kW(A)	5.5(13.6)	7.5(15.0)	7.5(15.0)	7.5(15.0)	7.5(15.0)	11(22.7)	11.0(22.7)	11.0(22.7)	11.0(22.7)	11.0(22.7)	11.0(22.7)			
Oil Pump(Oil)	kW(A)	0.55(1.8)	1.1(4.6)	1.1(4.6)	1.1(4.6)	1.1(4.6)	1.1(4.6)	1.1(4.6)	1.1(4.6)	1.1(4.6)	1.1(4.6)	1.1(4.6)			
Dimension	Length(L)	mm	5,060	5,600	6,100	5,740	6,240	6,760	6,170	6,690	7,190	6,850	7,350		
	Depth(W)	mm	3,080	3,080	3,080	3,400	3,400	3,400	4,180	4,180	4,180	4,590	4,590		
	Height(H)	mm	3,255	3,255	3,255	3,600	3,600	3,600	3,600	3,600	3,600	3,800	3,800		
Weight	Operating	Ton	21.8	23.5	25.3	33.5	36.1	38.9	44.3	47.6	50.6	55.5	58.5		
	Rigging	Ton	19.1	20.6	22.1	29.4	31.8	34.3	39.8	42.8	45.5	50.0	52.6		
Fuel Consumption	Gas	Connection Size	B(inch)	One-Section											
		11,000kcal/Nm³(Cooling/Heating)	Nm³/h	2	2	2	2	2	2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	
	Oil	Connection Size	B(inch)	Multi-Sectional-Shipment											
		Diesel(Cooling/Heating)	kg/h	153	172	191	218	245	273	300	327	355	382	409	
	Flue Connection Size	mm	500 x 350				620 x 400				900 x 400				
Clearance For Tube Removal	mm	4,600	5,200	5,700	5,200	5,700	6,200	5,700	6,200	6,700	6,200	6,200			

Note 1. 1usRT=3.52kW(3,024Kcal/h) 2. Tube and Water Side Pressure (Chilled & Cooled Water Circuit) : 8Kgf/cm² (785kPa) 3. Standard Gas Pressure : 4000mmAq 4. Total Current is based on 3Ph 380V 50Hz
5. Specifications are subject to change without prior notice

Steam Fired Absorption Chiller

Double Effect Steam Fired Chiller

Model		Unit	KWH-S010	KWH-S012	KWH-S015	KWH-S018	KWH-S021	KWH-S024	KWH-S028	KWH-S032	KWH-S036	KWH-S040	KWH-S045	KWH-S050	KWH-S056	KWH-S063	KWH-S070	KWH-S080	KWH-S090	KWH-S100	KWH-S110	KWH-S120	KWH-S130	KWH-S140	KWH-S150																																									
Nominal Cooling Capacity		usRT	100	120	150	180	210	240	280	320	360	400	450	500	560	630	700	800	900	1,000	1,100	1,200	1,300	1,400	1,500																																									
		KW	352	422	528	633	739	844	985	1,125	1,266	1,407	1,583	1,758	1,969	2,216	2,462	2,813	3,165	3,517	3,869	4,220	4,572	4,924	5,275																																									
Chilled Water Data	Temperature	°C	12 → 7																																																															
	Water Flow Rate	m³/h	60.5	72.6	90.7	108.9	127.0	145.2	169.3	193.5	217.7	241.9	272.2	302.4	338.7	381.0	423.4	483.8	544.3	604.8	665.3	725.8	786.2	846.7	907.2																																									
	Pressure Drop	mAq	6.5	6.6	8.0	8.3	7.5	7.9	5.1	5.5	5.8	6.1	5.2	5.5	4.6	6.2	8.1	4.7	6.4	8.4	6.2	7.9	9.8	8.0	9.8																																									
	Connection Size	B(inch)	4				5				6				8				10				12				14																																							
Cooling Water Data	Temperature	°C	32 → 37.5																																																															
	Water Flow Rate	m³/h	100	120	150	180	210	240	280	320	360	400	450	500	560	630	700	800	900	1,000	1,100	1,200	1,300	1,400	1,500																																									
	Pressure Drop	mAq	3.9	4.4	6.5	7.7	5.6	6.2	10.9	12.1	8.7	9.4	10.3	11.2	7.1	9.4	12.1	8.4	11.1	14.3	8.8	10.9	13.4	12.3	14.6																																									
	Connection Size	B(inch)	5				6				8				10				12				14				16																																							
Electrical Data	Phase / Volts / Hz		3 Ø, 220V/380V/440V, 50Hz/60Hz																																																															
	Total Current	A	9.6				9.6				13.7				26.8				25.8				34.6				46.7																																							
	Wire Size	mm²	3.5								8								14								22																																							
	Power	kVA	6.3				6.3				9.0				17.7				17.0				22.8				30.7																																							
	Absorbent Pump No.1	kW	2.4(6.4)				2.4(6.4)				3.4(10.2)				6.6(16.2)				7.5(25.0)																																															
	Absorbent Pump No.2	kW	*****												2.0(6.8)				2.2(5.8)				5.5(14.5)																																											
	Refrigerant Pump	kW	0.2(1.13)								0.4(1.42)								1.5(4.0)																																															
Purge Pump	kW	0.4(1.6)												0.75(2.4)																																																				
Dimension	Length(L)	mm	2,650				3,670				3,730				4,750				4,850				5,060				5,600				6,100				6,710				6,210				6,730				6,170				6,690				7,180				6,830				7,330			
	Width(W)	mm	1,775								1,880								2,110								2,250								2,480								2,825								3,000								3,250							
	Height(H)	mm	2,030								2,300								2,550								2,780								3,255								3,400								3,600								3,650							
Weight	Operating	Ton	4.2	4.4	5.5	5.7	6.8	7.1	8.4	8.8	10.8	11.2	13.2	13.6	18.8	20.4	21.9	28.1	30.1	32.2	35.7	38.0	40.1	44.4	46.8																																									
	Rigging	Ton	3.8	4.0	5.0	5.1	6.1	6.3	7.5	7.8	9.6	9.9	11.6	11.9	16.3	17.7	19.0	24.1	25.8	27.7	31.2	33.2	35.1	38.8	41.0																																									
Fuel Consumption	Steam Flow Rate	kg/h	440	528	660	792	924	1,060	1,230	1,410	1,580	1,760	1,980	2,200	2,470	2,780	3,080	3,520	3,960	4,400	4,840	5,280	5,720	6,160	6,600																																									
	Steam Inlet Connection Size	B(inch)	2				2 1/2				3				4				5				6																																											
	Drain Outlet Connection Size	B(inch)	1								1 1/2								2								2 1/2								3																															
	Steam Control Valve	B(inch)	1				1 1/2				2				2 1/2				3				4																																											
Clearance For Tube Removal	mm	2,400				3,400				4,500				4,600				5,200				5,700				5,200				5,700				6,200				5,800				6,300				6,800				6,300				6,800												

Note 1. 1usRT=3.52kW(3,024Kcal/h) 2. Tube and Water Side Pressure (Chilled & Cooled Water Circuit) : 8Kg/cm²(785kPa) 3. Standard Steam Pressure : 80Kg/cm²(785kPa)
4. Total Current is based on 3Ph 380V 50Hz 5. Specifications are subject to change without prior notice

Single Effect Steam Fired Chiller

Model		Unit	A-100A	A-120A	A-150A	A-180A	B-210A	B-240A	B-280A	C-320A	C-360A	C-400A	D-450A	D-500V	E-550V	E-620V	E-690V	E-770V	F-850V	F-950V	G-1050V	G-1150V	G-1300V	G-1400V																																	
Nominal Cooling Capacity		usRT	100	120	150	180	210	240	280	320	360	400	450	500	550	620	690	770	850	950	1,050	1,150	1,300	1,400																																	
Chilled Water Data	Inlet Outlet	°C	12 → 7																																																						
	Flow Rate	m³/h	60.5	72.6	90.7	109	127	145	169	194	218	242	272	302	333	375	417	466	514	575	635	696	786	847																																	
	Pressure Drop	mAq	2.2	2.5	2.9	3.4	3.1	3.3	4.9	4.7	4.6	4.9	4.6	4.6	5.5	5.8	3.3	3.5	3.5	3.6	3.9	4.0	6.6	6.6																																	
	Connection	B(inch)	4				5				6				8				10				12																																		
Cooling Water Data	Inlet Outlet	°C	32 → 39.5												32 → 40.2																																										
	Flow Rate	m³/h	100	120	150	180	210	240	280	320	360	400	450	500	498	561	624	697	769	860	950	1,041	1,177	1,267																																	
	Pressure Drop	mAq	3.6	3.7	4.8	5.3	4.7	5.1	7.3	6.0	6.3	6.7	5.9	6.2	7.2	7.6	10.8	11.3	9.9	10.3	8.3	8.8	13.8	14.2																																	
	Connection	B(inch)	5				6				8				10				12				14				16																														
Electrical Data	Phase / Volts / Hz		3 Ø, 220V/380V/440V, 50Hz/60Hz																																																						
	Motor Power	Absorbent Pump	kW	2.0(6.8A)								3.0(9.5A)								4.5(19.5A)								5.5(20A)																													
		Refrigerant Pump	kW	0.3(1.16A)								0.4(1.42A)								1.5(4.0A)																																					
		Purge Pump	kW	0.4(1.6A)												0.75(2.5A)																																									
	Control Circuit	kVA(A)	0.3(0.5A)																																																						
	Total Current	A	10.1				10.3				13.0				13.9				16.5				26.5				27.0																														
	Wire	mm ³	3.5								8								14																																						
Power	kVA	6.6				6.8				8.6				9.2				10.9				17.4				17.8																															
Dimension	Length(L)	mm	2,630				3,650				3,730				4,340				4,440				5,810				7,040				7,250				7,360				8,600																		
	Width(W)	mm	1,490								1,680								1,910								2,100								2,500								2,800														
	Height(H)	mm	2,180								2,410								2,750								3,970								3,230								3,600								4,200						
Weight	Operating	Ton	4.1	4.3	5.5	5.8	6.8	7.1	8.0	9.8	10.2	10.6	12.1	12.6	20.0	20.8	24.1	25.3	27.8	28.6	37.2	38.0	42.4	43.2																																	
	Rigging	Ton	3.7	3.9	5.0	5.2	6.0	6.3	7.0	8.5	8.9	9.2	10.5	10.8	17.3	18.1	21.0	22.2	23.4	24.2	32.2	33.0	36.4	37.2																																	
	Consumption	kg/h	800	960	1,200	1,440	1,680	1,920	2,240	2,560	2,880	3,200	3,600	4,000	4,400	4,960	5,520	6,160	6,800	7,600	8,400	9,200	10,400	11,200																																	
Steam	Steam Inlet Connection	B(inch)	5				6				8				10				12				14																																		
	Drain Outlet Connection	B(inch)	11/2								2								2 1/2								3								4																						
Tube Removal Space	mm	2,400				3,400				4,100				5,320				6,560				7,910																																			

Note 1. 1usRT=3.52kW(3,024Kcal/h) 2. Tube and Water Side Pressure (Chilled & Cooled Water Circuit) : 8Kg/cm²(785kPa) 3. Standard Steam Pressure : 1Kg/cm²(98kPa)
4. Total Current is based on 3Ph 380V 50Hz 5. Specifications are subject to change without prior notice

Hot Water Fired Absorption Chiller



Single Effect Hot Water Fired Absorption Chiller

Model	Unit	KLV-W003	KLV-W004	KLV-W005	KLV-W007	KLV-W008	KLV-W010	KLV-W012	KLV-W014	KLV-W016	KLV-W019	KLV-W021	KLV-W024	KLV-W027																																								
Nominal Cooling Capacity	usRT	28	30	38	40	47	50	61	65	75	80	94	100	113	120	132	140	151	160	179	190	198	210	226	240	254	270																											
Chilled Water Temp	°C	12-7	13-8	12-7	13-8	12-7	13-8	12-7	13-8	12-7	13-8	12-7	13-8	12-7	13-8	12-7	13-8	12-7	13-8	12-7	13-8	12-7	13-8	12-7	13-8	12-7	13-8	12-7	13-8																									
Chilled Water Data	Flow Rate	m ³ /h	17.1	18.1	22.8	24.2	28.5	30.2	37.0	39.3	45.6	48.4	57.0	60.5	68.3	72.6	79.7	84.7	91.1	96.8	108.2	114.9	119.6	127.0	136.7	145.2	153.8	163.3																										
	Pressure Drop	mAq	2.2	2.5	2.9	3.3	5.3	6.0	6.5	7.3	6.7	7.6	5.8	6.5	5.8	6.5	6.0	6.8	6.4	7.2	5.9	6.6	5.8	6.5	5.9	6.7	5.7	6.4																										
	Connection Size	B(inch)	2 1/2				3				4				5				6																																			
Cooling Water Data	Water In/Out Temp	°C	31 → 36.5																																																			
	Flow Rate	m ³ /h	37.4	39.4	49.8	52.5	62.3	65.7	81.0	85.4	99.7	105.1	124.6	131.3	149.5	157.6	174.4	183.9	199.4	210.2	236.8	249.6	261.7	275.8	299.1	315.2	336.4	354.4																										
	Pressure Drop	mAq	2.5	2.8	3.6	4.0	6.3	7.0	2.3	2.6	2.8	3.1	4.3	4.8	5.1	5.7	3.6	4.0	4.1	4.6	7.3	8.1	7.8	8.7	5.7	6.3	6.3	7.0																										
	Connection Size	B(inch)	3				5				6				8																																							
Hot Water Data	Water In/Out Temp	°C	95 → 80																																																			
	Flow Rate	m ³ /h	8.0	8.4	10.7	11.2	13.4	14.0	17.4	18.2	21.4	22.4	26.7	28.0	32.0	33.6	37.4	39.2	42.7	44.8	50.7	53.2	56.1	58.8	64.1	67.2	72.1	75.6																										
	Pressure Drop	mAq	1.1	1.2	1.2	1.3	2.6	2.9	0.8	0.9	0.9	1.0	2.1	2.3	2.2	2.4	2.2	2.4	2.4	2.6	4.4	4.8	4.3	4.7	4.4	4.8	4.4	4.8																										
	Connection Size	B(inch)	1 1/2				2 1/2				3				4																																							
Connection Size of Control Valve	B(inch)	1 1/2				2				2 1/2				3				4																																				
Electrical Data	Phase/Volts/Hz		3 Ø, 220V/380V/440V, 50Hz/60Hz																																																			
	Total Current	A	6.7								9.4								9.7								8.9																											
	Wire Size	mm ²	3.5																																																			
	Electric Consumption	kVA	4.4								6.2								6.4								5.9																											
	Absorbent Pump No.1	kW(A)	1.2(4.1)								2.0(6.8)								2.2(6.0)																																			
	Absorbent Pump No.2	kW(A)	*****																																																			
	Refrigerant Pump	kW(A)	0.2(1.13)								0.2(1.13)								0.4(1.42)																																			
	Purge Pump	kW(A)	0.4(1.0)																																																			
Dimension	Length(L)	mm	2,020				2,520				2,547				3,567				3,627				4,630				4,784																											
	Depth(W)	mm	1,344				1,346				1,305								1,476								1,539																											
	Height(H)	mm	1,952				1,965				2,150								2,330								2,630																											
Weight	Operating Weight	Ton	2.1				2.3				2.7				4.1				4.3				5.3				5.7				6.9				7.2				8.4				8.9				10.8				11.3			
	Rigging	Ton	1.8				1.9				2.3				3.5				3.7				4.6				4.9				5.8				6.1				7.1				7.5				9.1				9.5			
Tube Removal Space	mm	2,000				2,400				3,400				4,500																																								

Model	Unit	KLV-W031	KLV-W034	KLV-W038	KLV-W043	KLV-W048	KLV-W054	KLV-W060	KLV-W067	KLV-W074	KLV-W081	KLV-W088	KLV-W095	KLV-W102																																								
Nominal Cooling Capacity	usRT	292	310	320	340	358	380	405	430	452	480	509	540	565	600	631	670	697	740	763	810	829	880	895	950	961	1,020																											
Chilled Water Temp	°C	12-7	13-8	12-7	13-8	12-7	13-8	12-7	13-8	12-7	13-8	12-7	13-8	12-7	13-8	12-7	13-8	12-7	13-8	12-7	13-8	12-7	13-8	12-7	13-8	12-7	13-8	12-7	13-8																									
Chilled Water Data	Flow Rate	m ³ /h	176.6	187.5	193.7	205.6	216.4	229.8	244.9	260.1	273.4	290.3	307.6	326.6	341.7	362.9	381.6	405.2	421.5	447.6	461.4	489.9	501.2	532.2	541.1	574.6	581.0	616.9																										
	Pressure Drop	mAq	6.6	7.4	6.4	7.2	5.8	6.5	8.1	9.1	10.8	12.2	6.0	6.8	8.0	9.0	10.6	11.9	7.9	8.9	10.1	11.4	12.5	14.1	10.2	11.5	12.7	14.3																										
	Connection Size	B(inch)	6				8				10				12																																							
Cooling Water Data	Water in/Out temp	°C	31 → 36.5																																																			
	Flow Rate	m ³ /h	386.3	407.2	423.7	446.6	473.5	499.1	535.8	564.8	598.1	630.5	672.9	709.3	747.6	788.1	834.9	880.0	922.1	972.0	1,009	1,064	1,097	1,156	1,184	1,248	1,271	1,340																										
	Pressure Drop	mAq	7.2	8.0	7.7	8.6	5.8	6.4	7.8	8.7	10.2	11.3	5.9	6.6	7.7	8.5	10.0	11.1	6.2	6.9	7.7	8.6	9.5	10.6	8.8	9.8	10.4	11.6																										
	Connection Size	B(inch)	10				12				14				16																																							
Hot Water Circuit Data	Water in/Out Temp	°C	95 → 80																																																			
	Flow Rate	m ³ /h	82.8	86.8	90.8	95.2	101.5	106.4	114.8	120.4	128.2	134.4	144.2	151.2	160.2	168.0	178.9	187.6	197.6	207.2	216.3	226.8	235.0	246.4	253.7	266.0	272.4	285.6																										
	Pressure Drop	mAq	4.4	4.8	4.4	4.8	2.0	2.2	2.7	3.0	3.6	4.0	2.5	2.8	3.4	3.7	4.5	4.9	1.3	1.4	1.6	1.8	2.0	2.2	1.7	1.9	2.0	2.2																										
	Connection Size	B(inch)	5				6				8				8																																							
Connection Size of Control Valve	B(inch)	5				6				6				8																																								
Electrical Data	Phase/Volts/Hz		3 Ø, 220V/380V/440V, 50Hz/60Hz																																																			
	Total Current	A	8.9								20.9								19.9								25.7				38.0																							
	Wire Size	mm ²	3.5								5.5								8.0								14.0																											
	Electric Consumption	kVA	5.9								13.8								13.1								16.9				25.0																							
	Absorbent Pump No.1	kW(A)	2.0(6.0)								3.0(11.2)								4.5(17.0)																																			
	Absorbent Pump No.2	kW(A)	*****								2.0(6.8)								2.2(5.8)								5.5(14.5)																											
	Refrigerant Pump	kW(A)	0.4(1.42)								1.5(4.0)																																											
	Purge Pump	kW(A)	0.4(1.0)																																																			
Dimension	Length(L)	mm	4,789				4,931				5,473				5,971				5,616				6,114				6,639				6,346				6,871				7,371				7,050				7,550							
	Depth(W)	mm	1,652				2,015								2,195								2,680								2,970																							
	Height(H)	mm	2,886				3,260								3,680								3,920								4,040																							
Weight	Operating Weight	Ton	13.4				14.0				19.3				20.9				22.0				27.5				29.5				31.7				35.7				38.2				40.5				45.0				47.4			
	Rigging	Ton	11.2				11.7				16.2				17.6				18.5				22.7				24.4				26.3				30.1				32.3				34.2				37.8				39.8			
Tube Removal Space	mm	4,500				4,600				5,200				5,700				5,200				5,700				6,200				5,800				6,300				6,500				7,000												

Note 1. 1usRT=3.52kW(3,024Kcal/h) 2. Tube and Water Side Pressure (Chilled & Cooled Water Circuit) : KLV-W003-W005 : 5Kgf/cm²(490kPa) / KLV-W007-W102 : 8Kgf/cm²(785kPa)
 3. Standard Steam Pressure : 8Kgf/cm²(785kPa) 4. Total Current is based on 3Ph 380V 50Hz 5. Specifications are subject to change without prior notice



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