

揚帆

YANGFAN

空氣對水螺旋式熱泵熱水機

Air to Water Heat Pump Unit

能源費用節省
三分之二以上
的熱水機



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榮獲國際品質認證

以蒸氣壓縮方式作成熱泵熱水機，用做產業空調的再熱、農業用溫室加熱、民生用水加熱等，相較於傳統的電熱、天然氣、燃油加熱，消耗電能及燃料費用更低，無環境污染，是一種節能安全又環保的產品。

■ 壓縮機

選用半密閉螺旋式(熱泵專用)壓縮機，高壓縮比，可依負載大小，分段調整其排氣量，達到加、卸載的功能。

■ 冷凝器

選用殼管式冷凝器，依產業及民生應用之溫度需求、水側材質匹配專屬的冷凝器。

■ 蒸發器

選用高效率鰭片盤管式蒸發器，較大的冷卻面積，適合不同季節之外氣溫度。

■ 風扇馬達

螺旋槳軸流式風扇馬達，風量大、轉速慢，放置於室外噪音低，不影響鄰居安寧。

■ 冷媒流量控制

感溫式膨脹閥，精確控制冷媒系統的過熱度。液噴射電磁閥，確保壓縮機不致過熱。

■ 人性化操控管理

採用 PLC 可程式控制，具備自動啟動前檢查、警報記錄及自我診斷功能，精確控制熱水器回水或出水溫度。採觸控式液晶中文顯示之 LCD 人機介面、網路監控連線及數位化溫度、耗電量等感測。內建萬年曆及時間功能，可設定整年假日與非假日之開機/停機時間，並記錄運轉狀況、運轉時數與維修保養預警，有效提升系統管理。對溫度、壓力、過載、防止壓縮機頻繁啟動、逆向運轉等作最有效保護，當機組滿載或部份負載時，皆能保持高效率、安全及穩定之運轉。控制配合 RS-485 通訊埠，以 MODBUS(ASCII/RTU)通訊協定，可配合其他中央監控資訊服務，或使用本公司無線網路監控系統，透過雲端伺服器利用手機或遠控控制面板作開/關機及監控功能。

Air to water heat pump unit use the vapor compression cycle for air condition reheating, agricultural greenhouse heating, general water heating etc., to compare savings costs traditional electric heaters, natural gas, fuel heating, consumption of electricity and fuel, will not pollute the environment. It is an energy-conservation, safe and environmentally friendly products.

Compressor

Use semi-hermetic screw (heat pump special) compressor, high compression ratio, according to the capability of loading to adjustment of its discharge volume, to achieve the function of loading or unloading.

Condenser

Use shell and tube type. According to the industry and daily application temperature demand, water side material according to the custom-made of condenser.

Evaporator

Use high efficient coil type evaporator. Large cooling area, suitable for different seasons outside temperature.

Fan motor

Use propeller fan & motor, high air volume desired, low rotational speed. Low noise, can't effect neighbor.

Refrigerant flow control

Use thermo expansion valve and accurate control super heat of refrigerant system, Use liquid inject magnetic valve and make sure compressor won't be overheating.

Humanized management control

Adopt PLC programming control intelligent unit to perform a series of pre-start checks, alarm recording and self-diagnosing, and have the processing of the heat pump unit returning or leaving water temperature precisely controlled. Using touch control human-machine LCD interface displayed in Chinese, network monitoring and digital temperature sensors, power meter, etc. The in-built perpetual calendar and clock help you to set the time to start or stop the unit on holidays or non-holidays, and help you to record the unit working status, running hours and notice the maintenance alarm to keep the system managed efficiently. The unit is protected from high temperature, high pressure, compressor frequently ON/OFF and compressor running in reverse so as to keep the operation safely and stable with high efficiency no matter running at full load or partial load. Control with RS-485 communication port, use MODBUS (ASCII/RTU) communication protocol, can be combined with other central monitoring information services, or use the company's wireless network monitoring system, through the cloud server using cell phones or remote control panel for on/off and monitoring functions.

標準規範 Standard Specifications

單壓縮機系列 Single compressor series

型 號 MODEL		單 位 UNIT	YASHW-			
			300 S	400 S	500 S	600 S
製熱能力		kcal/h	99,800	128,000	162,000	190,000
Heating Capacity		kW	116.0	148.8	188.4	220.9
消耗電力		kW	41.9	53.5	67.2	82.1
Power Consumption						
運轉電流		A	73.4	91.6	114.7	141.6
Running Current						
滿載製熱性能系數 COPH		kW/kW	3.01	3.11	3.06	3.00
壓 縮 機		Compressor				
型 式	Type	半密閉螺旋式 Semi-Hermetic screw type				
電 源	Power Source	3 ϕ -380V-60Hz				
輸入功率	Power Input	kW	33.9	43.2	54.6	64.4
起動方式	Starting Method	Y- Δ 啟動 Y- Δ Starting				
冷 凝 器		Condenser				
型 式	Type	殼管式 Shell and tube				
熱 水 量	Hot Water Flow	l/min	333	427	540	633
出入管徑	Piping Conn.	In	2-1/2	3	3	4
蒸 發 器		Evaporator				
型 式	Type	鰭片盤管式 Copper tube and aluminum fin coil				
風 扇		Fan				
型 式	Type	螺旋槳式 Propeller type				
出 力	Power Output	kW	0.75 $\times$ 4	0.75 $\times$ 4	0.75 $\times$ 6	0.75 $\times$ 8
冷媒控制		Refrigerant Control				
型 式	Type	感溫式膨脹閥 Thermal expansion valve				
冷 媒	Refrigerant	R-134a				
冷 凍 油	Lubricate	CPI-120				
油充填量	Oil Charge	L	11	11	11	13
熱 水 泵		Hot Water Pump				
型 式	Type	連軸式端吸離心泵 Direct drive pump				
出 力	Power Output	kW	2.2	3.7	3.7	5.5
揚 程	Head	M	20	25	20	25
外型尺寸		Dimension				
		A	2,080	2,080	3,030	3,984
		B	1,995	1,995	2,180	2,180
		C	1,930	1,930	2,200	2,200

註：

1. 以上製熱能力依據熱水出水溫度 55℃；入水溫度 50℃；環境溫度 20℃ 條件測得。

2. 如需變更電壓請洽本公司技術部門。

Note :

1.The heating capacity is measured based on hot water outlet temp.55℃, hot water inlet temp.50℃, ambient temp.20℃.

2.Please contact with Yangfan tech. dept. if you want to change the power voltage.

標準規範 Standard Specifications

雙壓縮機系列 Daul compressor series

型 號 MODEL	單位 UNIT	YASHW-			
		600 D	800 D	10H D	12H D
製熱能力 Heating Capacity	Kcal/h kW	199,500 232.0	256,000 297.7	324,000 376.7	380,000 441.8
消耗電力 Power Consumption	kW	77.0	97.9	123.0	145.0
運轉電流 Running Current	A	134.7	167.0	209.0	248.9
滿載製熱性能系數 COPH	kW/kW	3.01	3.04	3.06	3.05
壓 縮 機 Compressor					
型 式 Type	半密閉螺旋式 Semi-Hermetic screw type				
電 源 Power Source	3 ϕ -380V-60Hz				
輸入功率 Power Input	kW	67.8	86.4	109.2	128.8
起動方式 Starting Method	Y- Δ 啟動 Y- Δ Starting				
冷 凝 器 Condenser					
型 式 Type	殼管式 Shell and tube				
熱 水 量 Hot Water Flow	l/min	665	853	1,080	1,266
出入管徑 Piping Conn.	In	4	4	4	5
蒸 發 器 Evaporator					
型 式 Type	鰭片盤管式 Copper tube and aluminum fin coil				
風 扇 Fan					
型 式 Type	螺旋槳式 Propeller type				
出 力 Power Output	kW	0.75×8	0.75×10	0.75×12	0.75×14
冷媒控制 Refrigerant Control					
型 式 Type	感溫式膨脹閥 Thermal expansion valve				
冷 媒 Refrigerant	R-134a				
冷 凍 油 Lubricate	CPI-120				
油充填量 Oil Charge	L	22	22	22	26
外型尺寸 Dimension					
A	mm	3,984	4,985	5,940	6,892
B		2,180	2,222	2,222	2,222
C		2,200	2,200	2,200	2,200

註：

1. 以上製熱能力依據熱水出水溫度 55℃；入水溫度 50℃；環境溫度 20℃ 條件測得。
2. 如需變更電壓請洽本公司技術部門。

Note :

1. The heating capacity is measured based on hot water outlet temp. 55℃, hot water inlet temp. 50℃, ambient temp. 20℃.
2. Please contact with Yangfan tech. dept. if you want to change the power voltage.

◆外氣變化性能表 Ambient Temperature Performance 單位Unit : kW

型號 Model 熱水出水溫度 Hot water outlet temp. 環境溫度 Ambient temp.		YASHW					
		300 S			400 S		
		45°C	50°C	55°C	45°C	50°C	55°C
25°C	製熱能力 Heating Capacity	149.4	143.9	138.4	200.0	197.8	176.2
	壓縮機耗電 Power Consumption	29.0	31.9	35.2	37.8	42.2	44.6
20°C	製熱能力 Heating Capacity	126.4	121.9	116.0	173.1	171.8	148.8
	壓縮機耗電 Power Consumption	28.0	30.9	33.9	37.0	41.4	43.2
15°C	製熱能力 Heating Capacity	106.6	102.8	98.9	149.5	148.4	126.0
	壓縮機耗電 Power Consumption	27.2	30.0	32.8	36.4	40.8	41.7
10°C	製熱能力 Heating Capacity	89.5	86.4	83.1	128.6	127.7	105.8
	壓縮機耗電 Power Consumption	26.4	28.9	31.6	35.7	39.1	40.1
7°C	製熱能力 Heating Capacity	80.5	77.7	74.7	117.2	98.9	95.1
	壓縮機耗電 Power Consumption	25.9	28.2	30.7	35.3	35.8	39.1

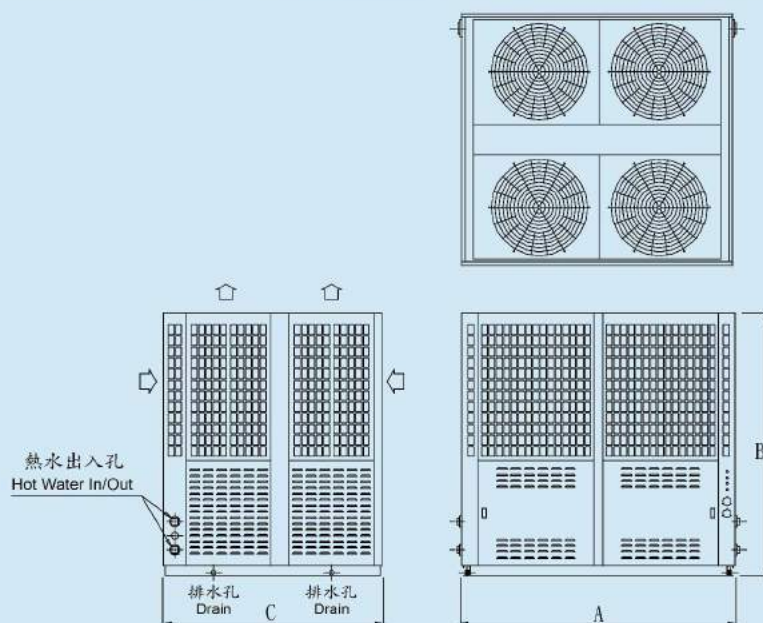
型號 Model 熱水出水溫度 Hot water outlet temp. 環境溫度 Ambient temp.		YASHW					
		500 S			600 S		
		45°C	50°C	55°C	45°C	50°C	55°C
25°C	製熱能力 Heating Capacity	242.8	233.8	224.7	282.1	272.0	261.8
	壓縮機耗電 Power Consumption	46.4	51.0	56.3	55.4	60.7	66.7
20°C	製熱能力 Heating Capacity	205.4	197.8	188.3	238.9	230.5	220.9
	壓縮機耗電 Power Consumption	44.9	49.5	54.6	53.4	58.6	64.4
15°C	製熱能力 Heating Capacity	173.0	166.8	160.4	196.7	194.6	182.9
	壓縮機耗電 Power Consumption	43.7	47.9	52.6	51.6	56.6	62.1
10°C	製熱能力 Heating Capacity	154.2	140.1	134.7	165.5	163.8	157.6
	壓縮機耗電 Power Consumption	42.3	46.3	50.6	49.8	54.5	59.5
7°C	製熱能力 Heating Capacity	130.6	125.9	121.1	148.9	147.3	141.7
	壓縮機耗電 Power Consumption	41.4	45.3	49.2	48.7	53.2	57.8

◆外氣變化性能表 Ambient Temperature Performance 單位Unit : kW

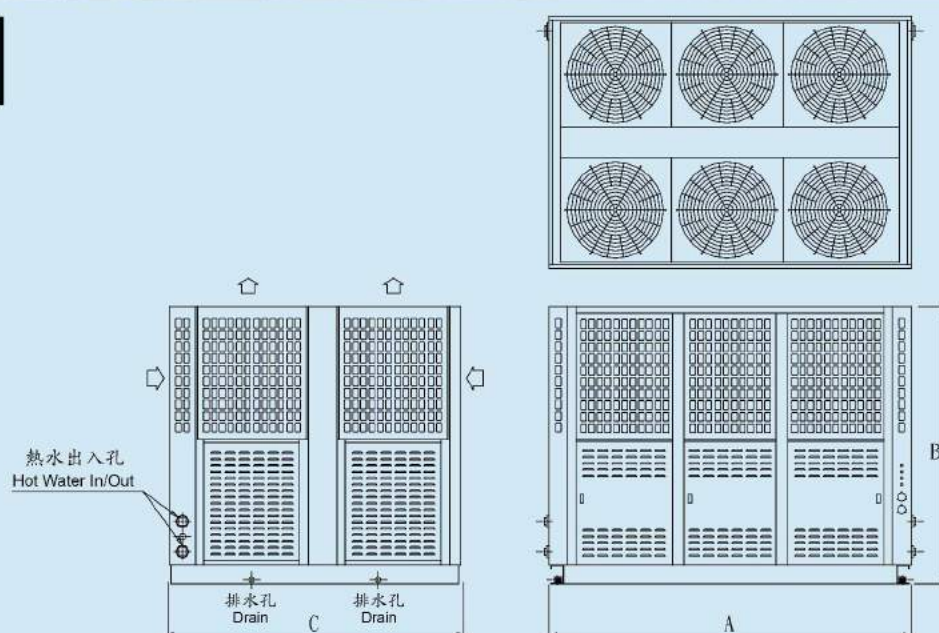
型號 Model 熱水出水溫度 Hot water outlet temp. 環境溫度 Ambient temp.		YASHW					
		600 D			800 D		
		45°C	50°C	55°C	45°C	50°C	55°C
25°C	製熱能力 Heating Capacity	298.8	287.8	276.8	400.0	395.6	352.4
	壓縮機耗電 Power Consumption	58.0	63.8	70.4	75.6	84.4	89.2
20°C	製熱能力 Heating Capacity	252.8	243.8	232.0	346.2	343.6	297.6
	壓縮機耗電 Power Consumption	56.0	61.8	67.8	74.0	82.8	86.4
15°C	製熱能力 Heating Capacity	213.2	205.6	197.8	299.0	296.8	252.0
	壓縮機耗電 Power Consumption	54.4	60.0	65.6	72.8	81.6	83.4
10°C	製熱能力 Heating Capacity	179.0	172.8	166.2	257.2	255.4	211.6
	壓縮機耗電 Power Consumption	52.8	57.8	63.2	71.4	78.2	80.2
7°C	製熱能力 Heating Capacity	161.0	155.4	149.4	234.4	197.8	190.2
	壓縮機耗電 Power Consumption	51.8	56.4	61.4	70.6	71.6	78.2

型號 Model 熱水出水溫度 Hot water outlet temp. 環境溫度 Ambient temp.		YASHW					
		10H D			12H D		
		45°C	50°C	55°C	45°C	50°C	55°C
25°C	製熱能力 Heating Capacity	485.6	467.6	449.4	564.2	544.0	523.6
	壓縮機耗電 Power Consumption	92.8	102.0	112.6	110.8	121.4	133.4
20°C	製熱能力 Heating Capacity	410.8	395.6	376.6	477.8	461.0	441.8
	壓縮機耗電 Power Consumption	89.8	99.0	109.2	106.8	117.2	128.8
15°C	製熱能力 Heating Capacity	346.0	333.6	320.8	393.4	389.2	365.8
	壓縮機耗電 Power Consumption	87.4	95.8	105.2	103.2	113.2	124.2
10°C	製熱能力 Heating Capacity	308.4	280.2	269.4	331.0	327.6	315.2
	壓縮機耗電 Power Consumption	84.6	92.6	101.2	99.6	109.0	119.0
7°C	製熱能力 Heating Capacity	261.2	251.8	242.2	297.8	294.6	283.4
	壓縮機耗電 Power Consumption	82.8	90.6	98.4	97.4	106.4	115.6

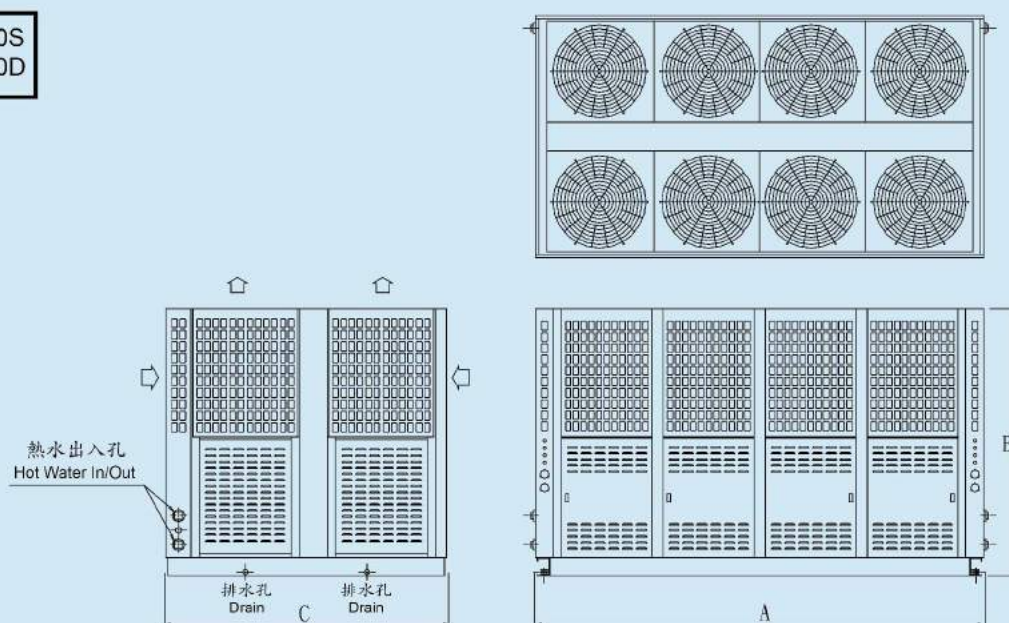
YASHW-300S
YASHW-400S



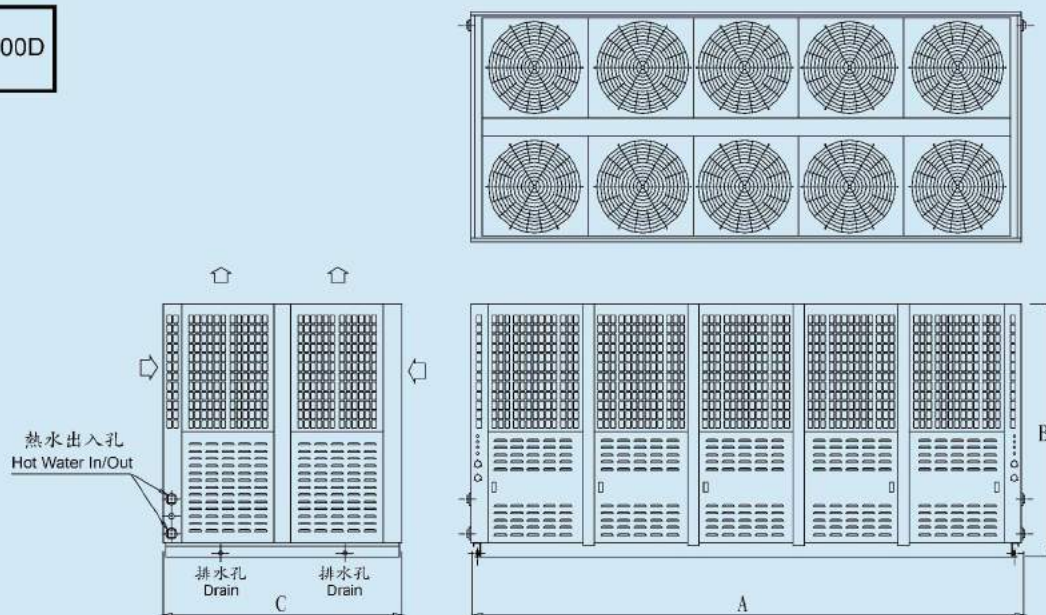
YASHW-500S



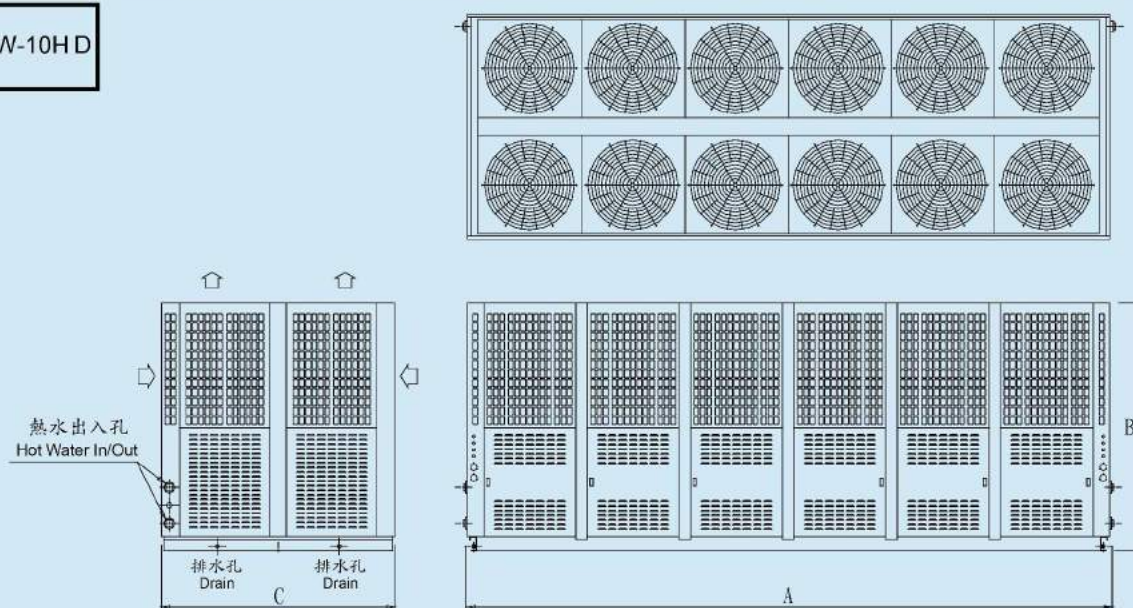
YASHW-600S
YASHW-600D



YASHW-800D



YASHW-10HD



YASHW-12HD

