

# ***WATER SOURCE SYSTEM***

Maximum Flexibility

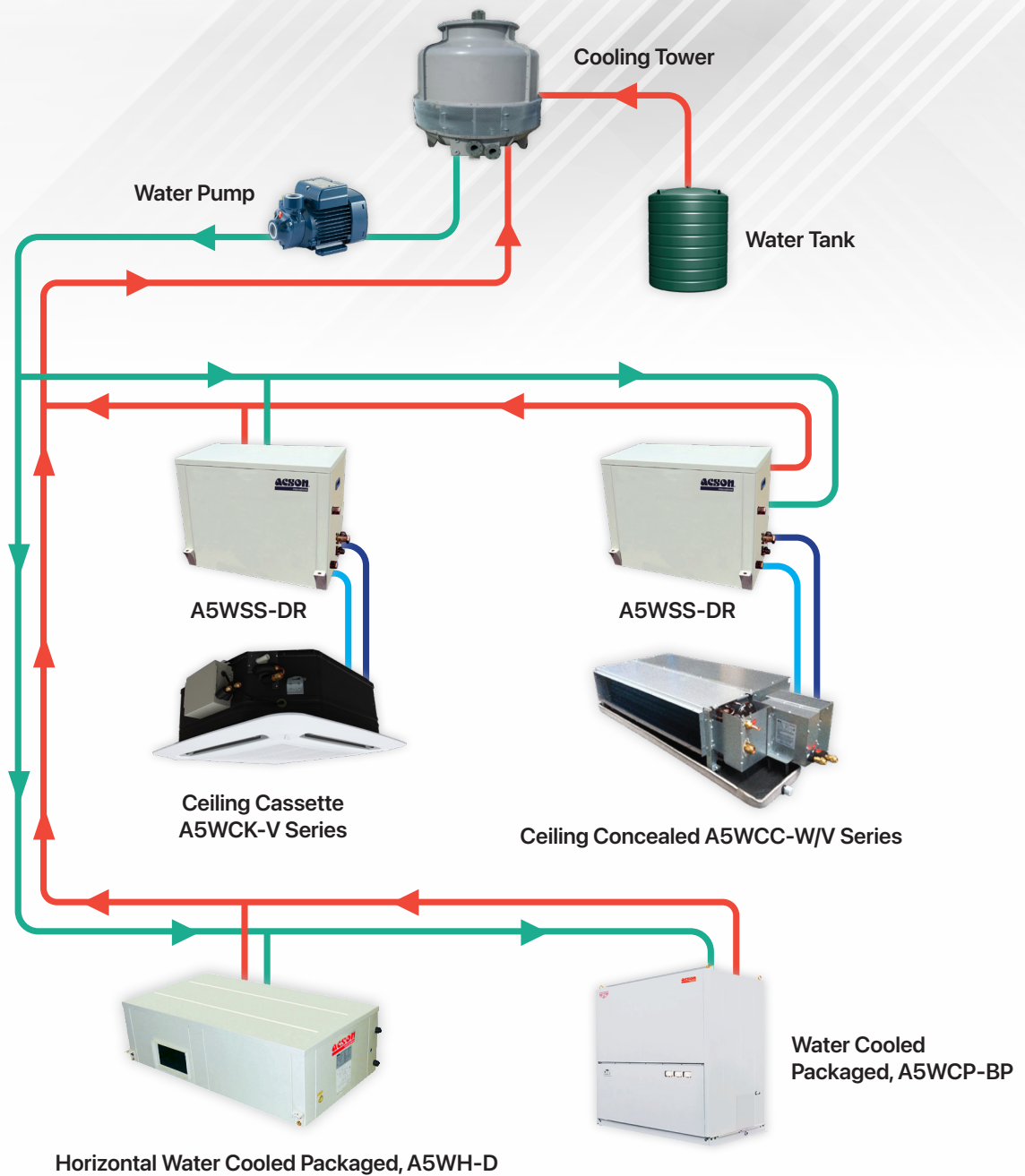


**ACSON**  
International  
Air Conditioners

# **WATER SOURCE SYSTEM**

## **Maximum Flexibility**

Acson water source system working principle is similar to that of a direct expansion system except water is used to cool down the condenser instead of air. Giving a better efficiency compared to air cooled. The whole process starts with the cooling tower where a continuous stream of water is circulated from the cooling water to the water packaged unit. Where the heat generated from the compression of refrigerant is transfer to the water. The water will then discharge the heat to the environment through evaporation at the cooling tower.



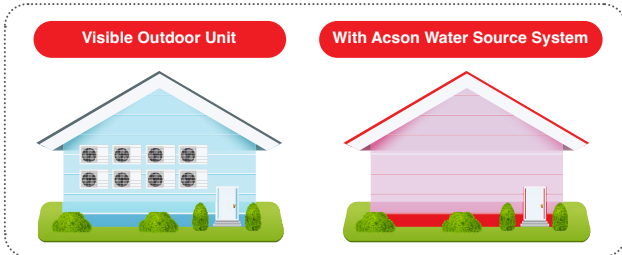
\*Picture is for illustration purpose only.



## Features

### No Visible Outdoor Unit

Acson water source system uses either tube in tube or shell and tube as the heat exchanger. There will be no unsightly outdoor unit visible.

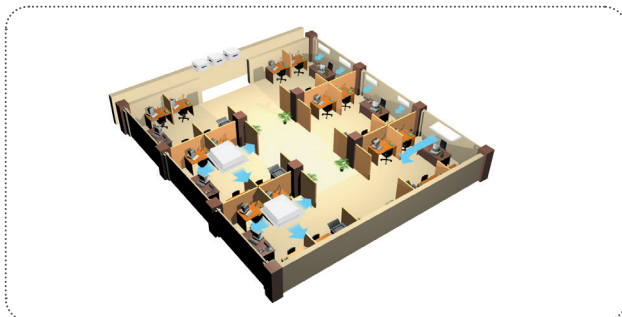


### Seaside Application

Since both indoor and outdoor will be placed in indoor environment. Water source system is economical choice for seaside application because exposure to the corrosive environment is kept to minimum.

### Zoned Comfort & Control

Acson water source system provides space cooling for a large number of individual building zones such as individual dwelling units in a multi-unit building. An individual water source is installed in each space or zone is connected to a single circulating water loop. Using various sensors, each unit has its own control system. This enables the same occupants that are using the same cooling tower system to have multiple sets of setting depending on the particular water source packaged unit.

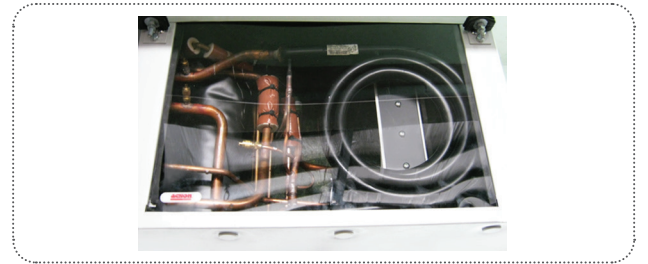


### Easier, Lower Initial Installation & Expansion Cost

With so many indoor units to be choose from. Piping and duct work could be minimize.

### Reliable & Stable Operation

Acson water source system utilize either a tube in tube or shell and tube heat exchanger. Both system stand out in term of efficiency, cost and performance. Couple together with pressure switches, control logic, temperature sensors the system become efficient, economical yet reliable.



### Lower Maintenance Cost

Acson water source products are designed with easier accessibility, especially to the compressor, blower and control section. Removable top and side panel greatly reduce the time required in any maintenance work.

### Energy Saving

Compare to conventional air-cooled air conditioning system, water source system yield better efficiency.

### Quiet Operation

Acson water source system uses only water making it very quiet compared to conventional air-cooled air conditioning system.

# Water Source Split Product Series - AWSS



Acson water source split (AWSS) system is one of the most efficient and high-performance systems. It is perfect for buildings that require cooling operation at different zones. With this, different areas or zones can be cooled at different temperatures simultaneously. The heat is rejected and added in a water loop using a cooling tower. The units are ready to install, operate and maintain.

**Model:** A5WSS 10 - 60DR

**Nominal Cooling Capacity:** 9000 BTU/h - 49,900 BTU/h

**Refrigerant:** R410A

## Features

### Maximum Installation Flexibility

The compact, lower profile, as well as variety of indoor and outdoor combination, make it easier to fix specific architecture and potential design construction of the building, or replacement application space requirement.

### Piping Reduction Between Indoor & Outdoor

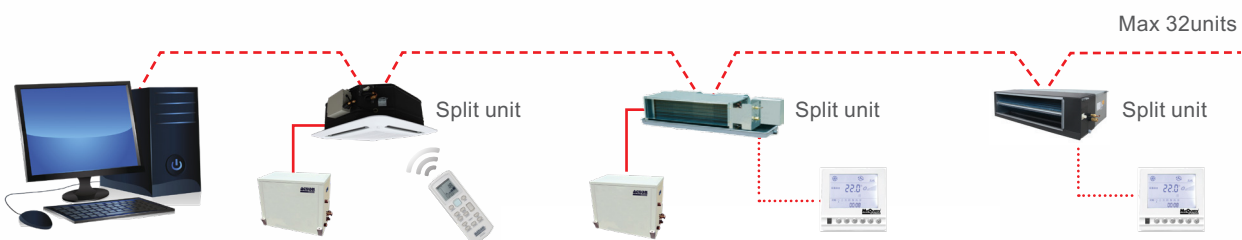
Since the unit can be concealed within the plaster ceiling, the piping between the indoor and condensing unit can be kept to a minimum.

### Variety of Products for Combinations

Diversity is our strength, Acson water source split have few products and cooling capacity to be chosen from. Few combinations are available to be coupled with the condensing unit: Ceiling cassette and ceiling concealed.



### Control - Standard ModBus interface of Building Automation System (BAS)



# Specifications

## AWSS - DR & A5WCC - W/V (Coupled with Ceiling Concealed V/W Series)

Model	Indoor	A5WCC010W	A5WCC015W	A5WCC018W	A5WCC020W	A5WCC025V	A5WCC030V	A5WCC040V	A5WCC050V	A5WCC060V	
	Outdoor	A5WSS010DR	A5WSS015DR	A5WSS018DR	A5WSS020DR	A5WSS025DR	A5WSS030DR	A5WSS040DR	A5WSS050DR	A5WSS060DR	
Nominal Cooling Capacity	BTU/hr	9,100	12,300	16,400	19,800	21,000	25,000	32,500	42,700	49,900	
	W	2,650	3,600	4,800	5,800	6,150	7,300	9,500	12,500	14,600	
Nominal Input Power	W	645	855	1,400	1,500	1,550	1,850	2,350	3,100	3,800	
Nominal Running Current	A	3.04	4.02	7.00	7.00	7.43	8.79	11.09	6.52	8.08	
EER	BTU/h/W	14.11	14.39	11.71	13.20	13.55	13.51	13.83	13.77	13.13	
	W/W	4.11	4.21	3.43	3.87	3.97	3.95	4.04	4.03	3.84	
Power Source	V/Ph/Hz	220 - 240 / 1 / 50							380 - 415 / 3 / 50		
<b>INDOOR UNIT</b>											
Control	Air Discharge		DUCTED								
	Operation		WIRED OR WIRELESS								
Air Flow	High	m³/h/CFM	440 / 259	620 / 365	850 / 500		900 / 530	1000 / 589	1750 / 1030	1900 / 1118	2400 / 1413
External Static Pressure	Pa		15(0/30)			30(10)		30(50)	30(50)		
Sound Pressure Level	High	dBA	28	35	38	38	41	43	45	46	48
	Medium	dBA	26	32	35	35	39	41	42	43	45
	Low	dBA	25	29	32	32	36	39	41	41	44
Unit Dimension	Height	mm / in	210 / 8.27		210 / 8.27		250 / 9.84		250 / 9.84		250 / 9.84
	Width	mm / in	700 / 27.56		900 / 35.43		1190 / 46.85		1635 / 64.37		1824 / 71.81
	Depth	mm / in	450 / 17.72		450 / 17.72		490 / 19.29		490 / 19.29		490 / 19.29
Packing Dimension	Height	mm / in	230 / 9.06	230 / 9.06	230 / 9.06	230 / 9.06	265 / 10.43	265 / 10.43	265 / 10.43	265 / 10.43	265 / 10.43
	Width	mm / in	860 / 33.86	1060 / 41.73	1060 / 41.73	1060 / 41.73	1211 / 47.68	1211 / 47.68	1641 / 64.61	1641 / 64.61	1641 / 64.61
	Depth	mm / in	540 / 21.26	540 / 21.26	540 / 21.26	540 / 21.26	560 / 22.05	560 / 22.05	520 / 20.48	520 / 20.48	520 / 20.48
Condensate Drain Pipe	Type		BSP- MALE								
	Size	mm / in	20.5 / 0.81"				19.05 / 3/4"				
Unit Weight	kg/lb		17.4 / 38.36	20 / 44.09			21.5 / 47		35 / 77	36.5 / 80.47	39.5 / 87.08
<b>OUTDOOR UNIT</b>											
Nominal Water Flow Rate	l/s(m³/h)		0.16 / 0.57	0.21 / 0.77	0.29 / 1.03	0.35 / 1.25	0.37 / 1.32	0.44 / 1.57	0.57 / 2.04	0.75 / 2.69	0.87 / 3.14
Water Pressure Drop	kPa		7	14	26	30	20	23	23	25	21
Water Pipe Size	Type		BSP - MALE								
	Side	mm / in	19.05 / 3/4"						25.4 / 1"		
Sound Pressure Level	dBA		30	30	33	33	33	34	38	39	39
Unit Dimension	Height	mm / in	375 / 14.76		420 / 16.54		420 / 16.54	480 / 18.90	500 / 19.69		
	Width	mm / in	465 / 18.31		520 / 20.47		520 / 20.47	620 / 24.41	690 / 27.17		
	Depth	mm / in	325 / 12.80		375 / 14.76		375 / 14.76	395 / 15.55	420 / 16.54		
Packing Dimension	Height	mm / in	435 / 17.13		480 / 18.90		540 / 21.26	560 / 22.05	560 / 22.05		
	Width	mm / in	525 / 20.67		585 / 23.03		690 / 27.17	790 / 31.10	790 / 31.10		
	Depth	mm / in	335 / 13.19		390 / 15.35		405 / 15.94	440 / 17.32	440 / 17.32		
Unit Weight	kg/lb		28 / 62	30 / 66	38 / 84		39 / 86	61 / 134	63 / 139	76 / 168	78 / 172
Pipe Connection	Type		FLARE								
	Size	Liquid	mm / in	6.35 / 1/4"			9.52 / 3/8"			12.7 / 1/2"	
		Gas	mm / in	9.52 / 3/8"	12.7 / 1/2"			15.88 / 5/8"			19.05 / 3/4"
Refrigerant Type	R410A										
Refrigerant Charge	kg/lb		0.64 / 1.41	0.65 / 1.43	0.82 / 1.81	0.82 / 1.81	1.1 / 2.43	1.17 / 2.58	1.8 / 3.97	1.6 / 3.53	2.1 / 4.63

**Notes:**

1. All specification are subjected to change by the manufacturer without prior notice.
2. Nominal cooling capacity are based on the condition below:

Indoor temperature	27°C DB / 19°C WB
Condenser inlet water temperature	30°C
Condenser outlet water temperature	35°C

# Specifications

## AWSS - DR & A5WCK - V (Coupled with Ceiling Cassette - V Series)

Model	Indoor	A5WCK020V	A5WCK030V	A5WCK050V	
	Outdoor	A5WSS020DR	A5WSS030DR	A5WSS050DR	
Nominal Cooling Capacity	BTU/hr	19,200	25,000	41,700	
	W	5,600	7,300	12,200	
Nominal Input Power	W	1,420	1,850	3,100	
Nominal Running Current	A	7.00	8.79	6.52	
EER	BTU/h/W	13.52	13.51	13.45	
	W/W	3.94	3.95	3.94	
Power Source	V/Ph/Hz	220 - 240/ 1 / 50		380 - 415 / 3 / 50	
<b>INDOOR UNIT</b>					
Control	Air Discharge		AUTOMATIC LOUVER		
	Operation		WIRED OR WIRELESS		
Air Flow	High	m <sup>3</sup> /h / CFM	1100 / 647	1150 / 677	1750 / 1030
Sound Pressure Level	High	dBA	42	42	50
	Medium	dBA	37	37	46
	Low	dBA	34	34	43
Unit Dimension	Height	mm / in	265 / 10.43		315 / 12.40
	Width	mm / in	820 / 32.28		
	Depth	mm / in	820 / 32.28		
Packing Dimension	Height	mm / in	325 / 12.80		375 / 14.76
	Width	mm / in	948 / 37.32		
	Depth	mm / in	918 / 36.14		
Condensate Drain Pipe	Type		BSP- MALE		
	Size	mm / in	20.5 / 0.81"		
Unit Weight		kg / lb	32+5 / 71+11		35+5 / 77+11
<b>OUTDOOR UNIT</b>					
Nominal Water Flow Rate		l/s(m <sup>3</sup> /h)	0.33 / 1.2	0.44 / 1.57	0.73 / 2.62
Water Pressure Drop		kPa	26	23	25
Water Pipe Size	Type		BSP - MALE		
	Side	mm / in	19.05 / 3/4"		25.4 / 1"
Sound Pressure Level		dBA	33	34	39
Unit Dimension	Height	mm / in	420 / 16.54	480 / 18.90	500 / 19.69
	Width	mm / in	520 / 20.47	620 / 24.41	690 / 27.17
	Depth	mm / in	375 / 14.76	395 / 15.55	420 / 16.54
Packing Dimension	Height	mm / in	480 / 18.90	540 / 21.26	560 / 22.04
	Width	mm / in	585 / 23.03	690 / 27.17	790 / 31.10
	Depth	mm / in	390 / 15.35	405 / 15.94	440 / 17.32
Unit Weight		kg / lb	38 / 83.78	61 / 134.48	76 / 167.55
Pipe Connection	Type		FLARE		
	Size	Liquid	mm / in	6.35 / 1/4"	9.52 / 3/8"
		Gas	mm / in	12.7 / 1/2"	15.88 / 5/8"
Refrigerant Type			R410A		
Refrigerant Charge		kg / lb	0.82 / 1.8	1.17 / 2.6	1.6 / 3.5

### Notes:

1. All specification are subjected to change by the manufacturer without prior notice.
2. Nominal cooling capacity are based on the condition below:

Indoor temperature	27°C DB / 19°C WB
Condenser inlet water temperature	30°C
Condenser outlet water temperature	35°C



# Water Cooled Packaged (Horizontal) Product Series - A5WH-D



Acson horizontal water-cooled packaged air conditioner is versatile with wide range of external static pressure up for selection, it is suitable for both commercial and industrial application. Using tube in tube as its heat exchanger. Acson horizontal water cooled packaged is an efficient yet economical choice.

**Model:** A5WH010D - 150D

**Nominal Cooling Capacity:** 9,400 BTU/h - 128,000 BTU/h

**Refrigerant:** R410A

## Features

### No Duct Work Needed

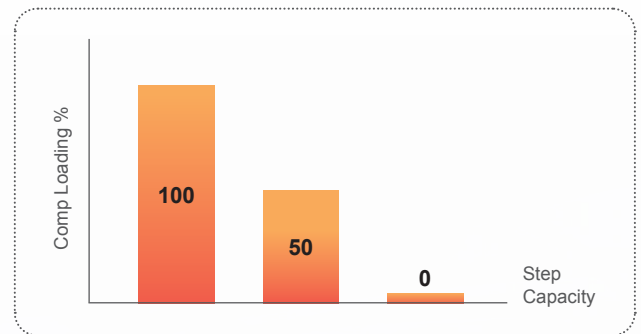
With range of external static pressure available. Acson horizontal water cooled packaged could be fitted with ducts or use as it is. Making it as an ideal choice for application that are unable to use chiller or as a backup to chiller.

### Intelligent Control System

These series adapt various ways of control, including standard wired controller and a central controller (max to 64 units) as other options.

### Partial Loading Capacity

For certain models, which have two or more compressors in their system, partial loading is achievable by switching on compressor depends on the needs.



# Specifications

## A5WH 010D - A5WH 050D (Packaged Horizontal Type)

Model		A5WH 010D	A5WH 015D	A5WH 020D	A5WH 025D	A5WH 030D	A5WH 040D	A5WH 050D	
Nominal Cooling Capacity	BTU/h	9,400	15000	17,900	22,700	29,900	34,800	42,700	
	W	2,750	4400	5,250	6,650	8,770	10,200	12,500	
Nominal Input Power	W	700	1040	1,220	1,520	2,230	2,250	2,850	
Nominal Running Current	A	3.38	4.91	5.93	7.46	11.03	10.57	13.76	
EER	BTU/h/W	13.43	14.42	14.67	14.93	13.41	15.47	14.98	
	W/W	3.93	4.23	4.30	4.38	3.93	4.53	4.39	
Expansion Device		CAPILLARY TUBE							
Power Source	V/Ph/Hz	220 - 240 / 1 / 50						380 - 415 /3 /50	
Control	Air Discharge	DUCTED							
	Operation	WIRED OR WIRELESS (OPTIONAL)							
Air Flow	m <sup>3</sup> /h / CFM	580 / 341	800 / 470	1,050 / 618	1,250 / 736	1,700 / 1,000	1,900 / 1,118	2,300 / 1,354	
External Static Pressure	Pa / in.wg	20 / 0.08	30 / 0.12	30 / 0.12	30 / 0.12	30 / 0.12	50 / 0.2	50 / 0.2	
Sound Pressure Level	dB(A)	34	41	40	45	48	44	47	
Condensate Drain Size	mm	20	20	20	20	20	20	20	
Water Pipe Connection	Type	BSP - MALE							
	Size	19.05 / 3/4"							
Condenser	Type	TUBE IN TUBE							
Nominal Water Flow Rate	l/s (m <sup>3</sup> /h)	0.17 (0.61)	0.26 (0.95)	0.31 (1.12)	0.39 (1.42)	0.54 (1.94)	0.59 (2.14)	0.74 (2.67)	
Water Pressure Drop	kPa	13	32	34	60	40	40	60	
Unit Dimension	Height	mm / in	375 / 14.76	390 (15.35)	435 / 17.13	435 / 17.13	435 / 17.13	460 / 18.11	510 / 20.08
	Width	mm / in	895 / 35.24	875 (34.45)	1,265 / 49.80	1,265 / 49.80	1,390 / 54.72	1,450 / 57.09	1,450 / 57.09
	Depth	mm / in	520 / 20.47	520 (20.47)	655 / 25.79	705 / 27.76	745 / 29.33	795 / 31.3	795 / 31.3
Packing Dimension	Height	mm / in	450 / 17.72	440 (17.32)	610 / 24.02	610 / 24.02	573 / 22.56	640 / 25.20	690 / 27.17
	Width	mm / in	990 / 38.98	930 (36.61)	1,350 / 53.15	1,340 / 52.76	1,430 / 56.30	1,580 / 62.2	1,580 / 62.2
	Depth	mm / in	600 / 23.62	545 (21.46)	740 / 29.13	790 / 31.10	790 / 31.10	850 / 33.46	850 / 33.46
Unit Weight	kg/lb	56 / 124	60 / 2.36	101 / 223	103 / 227	125 / 276	155 / 342	161 / 355	
Refrigerant Type		R410A							
Refrigerant Charge	kg/lb	0.74 / 1.63	0.72 / 1.59	1.35 / 2.98	1.46 / 3.22	0.95 x 2 / 2.09 x 2	1.3 x 2 / 2.87 x 2	1.55 x 2 / 3.42 x 2	

### Notes:

1. All specification are subjected to change by the manufacturer without prior notice.
2. Nominal cooling capacity are based on the condition below:

Indoor temperature	27°C DB / 19°C WB
Condenser inlet water temperature	30°C
Condenser outlet water temperature	35°C

3. Sound pressure level is measured from 1.4m below the unit.



# Specifications

## A5WH 060D - A5WH 150D (Packaged Horizontal Type)

Model		A5WH 060D	A5WH 070D	A5WH 080D	A5WH 100D	A5WH 125D	A5WH 150D	
Nominal Cooling Capacity	BTU/h	54,600	64,800	85,300	100,700	114,300	128,000	
	W	16,000	19,000	25,000	29,500	33,500	37,500	
Nominal Input Power	W	3,300	4,900	5,600	6,300	8,500	9,450	
Nominal Running Current	A	5.91	8.63	11.45	13.68	15.89	17.78	
EER	BTU/h/W	16.55	13.22	15.23	15.98	13.45	13.54	
	W/W	4.85	3.88	4.46	4.68	3.94	3.97	
Expansion Device		CAPILLARY TUBE						
Power Source		V/Ph/Hz 380 - 415 / 3 / 50						
Control	Air Discharge	DUCTED						
	Operation	WIRED OR WIRELESS (OPTIONAL)						
Air Flow	m³/h / CFM	2,800 / 1,648	3,400 / 2,001	5,000 / 2,943	6,000 / 3,531	7,000 / 4,120	8,000 / 4,709	
External Static Pressure	Pa / in.wg	80 / 0.32	80 / 0.32	80 / 0.32	100 / 0.4	100 / 0.4	150 / 0.6	
Sound Pressure Level	dBA	49	54	55	59	59	60	
Condensate Drain Size	mm	20	20	34	34	34	34	
Water Pipe Connection	Type	BSP - MALE					BSP - FEMALE	
	Size	mm / in	19.05 / 3/4"	25.4 / 1"	31.75 / 1-1/4"			
Condenser		TUBE IN TUBE						
Nominal Water Flow Rate	l/s (m³/h)	0.92 (3.3)	1.17 (4.22)	1.45 (5.23)	1.7 (6.12)	1.98 (7.11)	2.16 (7.78)	
Water Pressure Drop	kPa	60	61	73	45	55	65	
Unit Dimension	Height	mm / in	520 / 20.47	520 / 20.47	660 / 25.98	708 / 27.87	708 / 27.87	736 / 28.98
	Width	mm / in	1,580 / 62.20	1,670 / 65.75	1,756 / 69.13	1,970 / 77.56	1,970 / 77.56	2,226 / 87.64
	Depth	mm / in	850 / 33.46	855 / 33.66	1,000 / 39.37	1,150 / 45.28	1,150 / 45.28	1,200 / 47.24
Packing Dimension	Height	mm / in	680 / 26.77	680 / 26.77	820 / 32.28	860 / 33.86	860 / 33.86	900 / 35.43
	Width	mm / in	1,636 / 64.41	1,750 / 68.90	1,820 / 71.65	2,020 / 79.53	2,020 / 79.53	2,315 / 91.14
	Depth	mm / in	890 / 35.04	880 / 34.65	1,010 / 39.76	1,210 / 47.64	1,210 / 47.64	1,220 / 48.03
Unit Weight	kg/lb	198 / 437	208 / 459	245 / 540	365 / 805	375 / 827	450 / 992	
Refrigerant Type		R410A						
Refrigerant Charge	kg/lb	3.5 / 7.72	2.8 / 6.17	3.5 / 7.72	3.2 x 2 / 7.05 x 2	3.0 x 2 / 6.61 x 2	3.7 x 2 / 8.16 x 2	

Notes:

- All specification are subjected to change by the manufacturer without prior notice.
- Nominal cooling capacity are based on the condition below:

Indoor temperature	27°C DB / 19°C WB
Condenser inlet water temperature	30°C
Condenser outlet water temperature	35°C

- Sound pressure level is measured from 1.4m below the unit.

# Water Cooled Packaged (Floor Mounted) Product Series - A5WCP

**Model:**  
A5WCP18-210BP  
A5WCP18-75BP(P)

**Nominal Cooling Capacity:**  
56,400 BTU/h - 699,500 BTU/h  
56,400 BTU/h - 247,400 BTU/h

**Refrigerant:**  
R410A



**Model:**  
A5WCP 060A(P) - 940A

**Nominal Cooling Capacity:**  
57,700 BTU/h - 931,400 BTU/h

**Refrigerant:**  
R410A

Acson floor mounted water cooled packaged is similar to its smaller counterpart, having multiple compressors with independent circuits. It is further enhanced by having a belt-driven system and plenum option. It also uses shell and tube to give a better performance compared to the horizontal unit.

## Features

### Free-Blow Air Conditioning Systems

An optional plenum is available for models A5WCP18BP(P) to A5WCP75BP(P) for free-blow application for all models.

### Anti-Corrosion Unit Casing

The unit is constructed of an electro-galvanized steel body with epoxy polyester powder coating. Hence, the unit is suitable for both commercial and industrial application.

### High Efficiency Hermetic Scroll Compressor

- Quiet Operation
- Excellent reliability with 70% fewer moving parts than comparably sized reciprocating compressors.
- Greater capability at handling liquid and debris in the system
- High efficiency performance.

### Enhanced Copper Tubes Condenser

Extra-high efficiency is attained by special designed shell-and-tube condenser with “T” groove copper tube surfaces for superior refrigerant-water heat transfer.

# Specifications

## A5WCP 18BP(P) - A5WCP 85BP

Models		A5WCP18BP(P)	A5WCP30BP(P)	A5WCP35BP(P)	A5WCP55BP(P)	A5WCP75BP(P)	A5WCP85BP	
Nominal Cooling Capacity	BTU/h	56,400	85,400	109,200	174,100	247,400	290,100	
	W	16,500	25,000	32,000	51,000	72,500	85,000	
Nominal Input Power	W	4160	7100	9000	13000	20300	22500	
Nominal Running Current	A	9.2	15.5	17.5	24.5	36.5	42	
EER	BTU/h/W	13.56	12.03	12.13	13.39	12.19	12.89	
	W/W	3.97	3.52	3.56	3.92	3.57	3.78	
Expansion Device		CAPILLARY TUBE						
Power Source		V/Ph/Hz 380 - 415 / 3 / 50						
Control	Air Discharge	DUCTED						
	Operation	WIRED OR WIRELESS						
Air Flow	m <sup>3</sup> /h / CFM	2880 / 1695	4200 / 2472	6800 / 4002	8000 / 4709	11500 / 6769	14000 / 8240	
External Static Pressure	Pa / in.wg	80(10) / 0.3 (0.04)	100(10) / 0.4 (0.04)	100(10) / 0.4 (0.04)	150(10) / 0.6 (0.04)	150(10) / 0.6 (0.04)	200	
Sound Pressure Level	dBa	52	63	65	67	70	72	
Condensate Drain Size	mm / in	25.4 / 1"						
Water Pipe Connection	Type	FEMALE THREAD						
	Size	mm / in	31.75 / 1-1/4	31.75 / 1-1/4	31.75 / 1-1/4	50.80 / 2	50.80 / 2	50.80 / 2
Condenser	Type	TUBE IN TUBE					SHELL AND TUBE	
Nominal Water Flow Rate	l/s (m <sup>3</sup> /h)	0.99 / 3.55	1.49 / 5.38	1.91 / 6.88	3.05 / 10.97	4.33 / 15.59	5.08 / 18.28	
Water Pressure Drop	kPa	53	32	60	60	64	25	
Unit Dimension (without plenum)	Height	mm / in	1600(1880) / 62.9 (74.02)	1600(1880) / 62.9 (74.02)	1880(2150) / 74.02(84.65)	1900(2160) / 74.8(85.04)	1985(2350) / 78.15(92.52)	1985 / 78.15
	Width	mm / in	1175 / 46.26	1175 / 46.26	1175 / 46.26	1585 / 62.4	1905 / 75	2000 / 78.74
	Depth	mm / in	660 / 25.98	660 / 25.98	660 / 25.98	730 / 28.74	830 / 32.68	1055 / 41.54
Packing Dimension	Height	mm / in	1730(2010) / 68.11(79.13)	1730(2010) / 68.11(79.13)	2010(2280) / 79.13(89.76)	2030(2290) / 79.92(90.16)	2110(2550) / 83.07(100.39)	2110 / 83.07
	Width	mm / in	1258 / 49.53	1258 / 49.53	1258 / 49.53	1670 / 65.75	1990 / 78.35	2120 / 83.46
	Depth	mm / in	720 / 28.34	720 / 28.34	720 / 28.34	780 / 30.71	880 / 34.65	1150 / 45.28
Unit Weight	kg/lb	205(220) / 452(485)	260(275) / 573(606)	310(325) / 683(717)	440(470) / 970(1036)	560(600) / 1235(1323)	770 / 1698	
Unit Gross Weight	kg/lb	225(240) / 496(529)	285(295) / 628(650)	330(345) / 728(761)	465(495) / 1025(1091)	595(635) / 1312(1400)	810 / 1786	
Refrigerant Type		R410A						
Refrigerant Charge	kg/lb	1.7 / 3.75	2.4 / 5.29	2.7 / 5.95	4.6 / 10.14	6.4 / 14.11	9.3 / 20.50	

### Notes:

- All specification are subjected to change by the manufacturer without prior notice.
- Nominal cooling capacity are based on the condition below:

Indoor temperature	27°C DB / 19°C WB
Condenser inlet water temperature	30°C

- Sound pressure level is measured from 1m in front & below the unit.

# Specifications

## A5WCP 100BP(P) - A5WCP 210BP

Models		A5WCP100BP	A5WCP120BP	A5WCP135BP	A5WCP150BP	A5WCP170BP	A5WCP190BP	A5WCP210BP	
Nominal Cooling Capacity	BTU/h	324,200	399,300	460,700	528,900	573,300	641,500	699,500	
	W	95,000	117,000	135,000	155,000	168,000	188,000	205,000	
Nominal Input Power	W	24500	27500	33500	38500	42500	47000	53000	
Nominal Running Current	A	50	54	66	73	81	92	103	
EER	BTU/h/W	13.23	14.52	13.75	13.74	13.49	13.65	13.20	
	W/W	3.88	4.25	4.03	4.03	3.95	4.00	3.87	
Expansion Device		CAPILLARY TUBE							
Power Source		V/Ph/Hz 380 - 415 / 3 / 50							
Control	Air Discharge	DUCTED							
	Operation	WIRED OR WIRELESS							
Air Flow	m <sup>3</sup> /h / CFM	17000 / 10006	19800 / 11654	21500 / 12654	24600 / 14479	26000 / 15303	28800 / 16951	33000 / 19423	
External Static Pressure	Pa / in.wg	250 / 1	250 / 1	300 / 1.2	300 / 1.2	350 / 1.4	350 / 1.4	350 / 1.4	
Sound Pressure Level	dBa	74	75	76	77	77	78	79	
Condensate Drain Size	mm / in	25.4 / 1"							
Water Pipe Connection	Type	FEMALE THREAD							
	Size	mm / in	50.80 / Rc 2	50.80 / Rc 2	63.5 / 2-1/2	63.5 / 2-1/2	76.2 / 3	76.2 / 3	76.2 / 3
Condenser	Type	SHELL AND TUBE							
Nominal Water Flow Rate	l/s (m <sup>3</sup> /h)	5.68 / 20.43	6.99 / 25.16	8.06 / 29.03	9.26 / 33.33	10.03 / 36.12	11.23 / 40.42	12.24 / 44.08	
Water Pressure Drop	kPa	28	52	48	54	52	50	57	
Unit Dimension (without plenum)	Height	mm / in	1985 / 78.15	1985 / 78.15	1985 / 78.15	1985 / 78.15	2060 / 81.10	2060 / 81.10	2060 / 81.10
	Width	mm / in	2000 / 78.74	2180 / 85.83	2380 / 93.7	2380 / 93.7	2380 / 93.7	2620 / 103.15	2860 / 112.60
	Depth	mm / in	1055 / 41.54	1055 / 41.54	1055 / 41.54	1215 / 47.83	1215 / 47.83	1215 / 47.83	1215 / 47.83
Packing Dimension	Height	mm / in	2110 / 83.07	2110 / 83.07	2110 / 83.07	2110 / 83.07	2190 / 86.22	2190 / 86.22	2190 / 86.22
	Width	mm / in	2120 / 83.46	2290 / 90.16	2500 / 98.43	2490 / 98.03	2490 / 98.03	2660 / 104.73	2900 / 114.17
	Depth	mm / in	1150 / 45.28	1200 / 47.24	1150 / 45.28	1290 / 50.79	1290 / 50.79	1290 / 50.79	1290 / 50.79
Unit Weight	kg/lb	805 / 1775	835 / 1841	925 / 2039	1005 / 2216	1155 / 2546	1240 / 2734	1395 / 3075	
Unit Gross Weight	kg/lb	810 / 1786	850 / 1874	880 / 1940	1050 / 2315	1200 / 2646	1290 / 2844	1455 / 3208	
Refrigerant Type		R410A							
Refrigerant Charge	kg/lb	10.9 / 24.03	11 / 24.25	13.5 / 29.76	14.4 / 31.75	16.5 / 36.38	20.4 / 44.97	29.4 / 64.82	

### Notes:

- All specification are subjected to change by the manufacturer without prior notice.
- Nominal cooling capacity are based on the condition below:

Indoor temperature	27°C DB / 19°C WB
Condenser inlet water temperature	30°C

- Sound pressure level is measured from 1m in front & below the unit.



# Double Skin Water Cooled Packaged

(A5WCP-A)

The vertical double skin water cooled packaged air conditioner is the alternatives addressing the energy efficiency, indoor air quality and sound concerns for commercial, factory and supermarket applications.

## Features:

### 1. Double Protection

All the framework is insulated with 1 inch double skin Polyurethane (PU) insulation panel and all frames are insulated with Polyethylene (PE) that is chemical resistant. PE is a resilient type closed-cell foam that ideal for shock absorbing, vibration dampening, minimize heat loss and avoid condensation to take place. Adding double skin PU insulation panel accomplishes few benefits:

- Excellent Thermal Barrier (prevent heat lost and sweating).
- Condensation Control
- Superior Silent Operation  
(lined with 1 inch sound-proof insulation to avoid transmission of vibration)
- Air Tightness

*\*50 mm double skin PU insulation panel is available upon request.*

### 2. Control

R410A water cooled packaged controller with Direct On Line (DOL) motor starter have built-in RS485 port. (Modbus BMS control)

### 3. Excellent filtration system

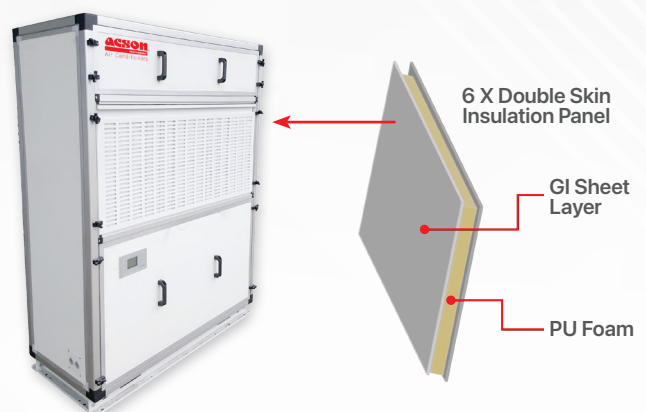
Rather than using conventional saranet filter, Acson double skin water cooled packaged is equipped with either R29 or G3 filter.



\*Sample

### 4. Flexible Drive Package

R410A water cooled packaged use belt-driven system. Hence, it is possible to regulate the external static pressure and air flow.



# Specifications

## A5WCP0060A(P) - A5WCP0320A

Model		A5WCP0060A(P)	A5WCP0090A(P)	A5WCP0140A(P)	A5WCP0180A(P)	A5WCP0240A	A5WCP0280A	A5WCP0320A	
Nominal Cooling Capacity	BTU/hr	57,700	87,200	132,500	173,900	231,900	284,700	314,000	
	W	16,900	25,600	38,800	51,000	68,000	83,400	92,000	
Nominal Input Power	W	4,550	6,940	10,410	13,350	18,160	19,950	25,780	
Nominal Running Current	A	9.72	14.37	21.9	26.81	35.67	41.78	47.98	
EER	BTU/h/W	12.68	12.56	12.73	13.03	12.77	14.27	12.18	
	W/W	3.71	3.69	3.73	3.82	3.74	4.18	3.57	
Expansion Device		TXV							
Power Source		V/Ph/Hz 380 - 415 / 3 / 50							
Control	Air Discharge	DUCTED							
	Operation	WIRED							
Air Flow	m <sup>3</sup> /h / CFM	3,058 / 1,800	4,587 / 2,700	7,646 / 4,500	9,175 / 5,400	11,893 / 7,000	15,121 / 8,900	18,689 / 11,000	
External Static Pressure With Filter	Pa / in wg	250 / 1 (0)				250 / 1			
Sound Pressure Level	dBA	70	71	71	73	67	68	70	
Nominal Water Flow Rate	l/s (m <sup>3</sup> /h)	1 (3.6)	1.39 (5.0)	2.24 (8.05)	2.99 (10.76)	3.78 (13.62)	4.41 (15.89)	5.18 (18.67)	
Water Pressure Drop	kPa	10	16	12	16	13	13	16	
Water Pipe Connection	Type	BSP - FEMALE							
	Size	mm / in	31.75 / 1-1/4" (RIGHT)	38.1 / 1-1/2" (RIGHT)	63.5 / 2-1/2" (RIGHT)	76.2 / 3" (RIGHT)	63.5 / 2-1/2" (LEFT)		
Condenser	Type	TUBE IN TUBE				SHELL AND TUBE			
Condensate Drain Size	Type	BSP - MALE							
	Size	mm / in	31.75 / 1-1/4" (Right Side)	31.75 / 1-1/4" (Both Side)			1-1/4" (Both Side)		
Unit Dimension	Height	mm / in	1,755 / 69.09 (2,055 / 80.91)	1,814 / 71.42 (2,114 / 83.23)	2,153 / 84.76 (2,453 / 96.57)	2,370 / 93.31 (2,670 / 105.12)	1,768 / 69.06	1,921 / 75.63	1,798 / 70.79
	Width	mm / in	1,068 / 42.04	1,410 / 55.51	1,486 / 58.50	1,486 / 58.50	1,576 / 62.04	1,576 / 62.04	1,859 / 73.19
	Depth	mm / in	570 / 22.44	570 / 22.44	765 / 301.34	765 / 301.34	1,176 / 46.30	1,176 / 46.30	1,282 / 50.47
Shipping Weight	kg / lb	160 / 353 (175 / 386)	241 / 531 (261 / 575)	416 / 917 (441 / 972)	470 / 1,036 (495 / 1,091)	558 / 1,230	658 / 1,451	728 / 1,605	
Operating Weight	kg / lb	162 / 357 (177 / 390)	245 / 540 (265 / 584)	423 / 933 (448 / 988)	476 / 1,049 (501 / 1,105)	566 / 1,248	667 / 1,470	736 / 1,623	
Refrigerant Type		R410A							
Refrigerant Charge	kg / lb	2 / 4.41	2.8 / 6.17	5.1 / 11.24	6.0 / 13.23	13.3 / 29.33	14.3 / 31.53	9.4 x 2 / 20.7 x 2	

### Notes:

1. All specification are subjected to change by the manufacturer without prior notice.
2. Nominal cooling capacity are based on the condition below:
3. The pipping orrientation is viewed from front panel.

Indoor temperature	26.7°C DB / 19.4°C WB
Condenser inlet water temperature	30°C
Condenser outlet water temperature	35°C

4. Sound Pressure Level is measured at open field and 1m from service (front) panel and ground.
5. Unit in the parentheses are applicable for the units with plenum.

# Specifications

## A5WCP0360A - A5WCP0940A

Model		A5WCP0360A	A5WCP0400A	A5WCP0520A	A5WCP0570A	A5WCP0710A	A5WCP0870A	A5WCP0940A
Nominal Cooling Capacity	BTU/hr	356,900	400,500	518,900	568,300	700,700	862,200	931,400
	W	104,600	117,400	152,100	166,600	205,400	252,700	273,000
Nominal Input Power	W	29,910	33,140	43,620	43,980	57,600	70,800	76,100
Nominal Running Current	A	62.42	68.40	83.13	82.96	103.7	134.9	141.5
EER	BTU/h/W	11.93	12.09	11.90	12.92	12.16	12.18	12.24
	W/W	3.50	3.54	3.49	3.79	3.57	3.57	3.59
Expansion Device		TXV						
Power Source		V/Ph/Hz 380 - 415 / 3 / 50						
Control	Air Discharge	DUCTED						
	Operation	WIRED						
Air Flow	m <sup>3</sup> /h / CFM	20,048 / 11,800	21,747 / 12,800	24,636 / 14,500	26,335 / 15,500	36,189 / 21,300	45,364 / 26,700	48252 / 28,400
External Static Pressure With Filter	Pa / in wg	250 / 1						
Sound Pressure Level	dBA	68	79	80	77	79	80	84
Nominal Water Flow Rate	l/s (m <sup>3</sup> /h)	5.66 (20.37)	6.78 (24.40)	8.50 (30.60)	9.31 (33.50)	11.36 (40.9)	13.86 (49.90)	15.14 (54.5)
Water Pressure Drop	kPa	23	12	12	34	13	15	16
Water Pipe Connection	Type	BSP - FEMALE						
	Size	mm / in 63.5 / 2-1/2" (LEFT)						
Condenser	Type	SHELL AND TUBE	TUBE IN TUBE		SHELL AND TUBE	TUBE IN TUBE		
Condensate Drain Size	Type	BSP - MALE						
	Size	mm / in 1-1/4" (Both Side)						
Unit Dimension	Height	mm / in 2,204 / 86.77	1,907 / 75.09	1,907 / 75.09	2,096 / 82.52	1,927 / 75.87	2,118 / 83.39	2,133 / 83.98
	Width	mm / in 1,859 / 73.19	2,691 / 105.95	2,691 / 105.95	2,691 / 105.95	3,281 / 129.17	3,281 / 129.17	3,391 / 133.50
	Depth	mm / in 1,282 / 50.47	1,583 / 62.32	1,583 / 62.32	1,583 / 62.32	1,584 / 62.36	1,584 / 62.36	1,584 / 62.36
Shipping Weight	kg / lb	857 / 1,889	1,201 / 2,648	1,269 / 2,797	1,300 / 2,866	1,608 / 3,545	1,971 / 4,345	2,145 / 4,729
Operating Weight	kg / lb	866 / 1,909	1,218 / 2,685	1,289 / 2,842	1,314 / 2,897	1,633 / 3,600	2,001 / 4,411	2,178 / 4,802
Refrigerant Type		R410A						
Refrigerant Charge	kg / lb	9.5 x 2 / 20.9 x 2	6 x 3 / 13.2 x 2	7 x 3 / 15.4 x 3	17 x 2 / 37.5 x 2	9.4 x 3 / 20.7 x 3	11.5 x 3 / 25.4 x 3	9.4 x 4 / 20.7 x 4

### Notes:

1. All specification are subjected to change by the manufacturer without prior notice.
2. Nominal cooling capacity are based on the condition below:
3. The pipping orrientation is viewed from front panel.

Indoor temperature	26.7°C DB / 19.4°C WB
Condenser inlet water temperature	30°C
Condenser outlet water temperature	35°C

4. Sound Pressure Level is measured at open field and 1m from service (front) panel and ground.
5. Unit in the parentheses are applicable for the units with plenum.



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