



SANYO

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AIRCONDITIONERS EUROPE

GENERAL CATALOGUE 2006



SANYO Airconditioners Europe History

SANYO

The **SANYO Group of Companies** is truly international, including 63 manufacturing companies, 40 sales companies and 37 other companies around the world. **SANYO's strategic business focus is on the Digital & Devices and Energy and Ecology fields.** Committed to solving environment issues, the Company has made the development of technologies with minimum of burden on the environment, an area of strenght. It emphasizes such technologies as clean-energy generation air conditioning methods that do not require the use of harmful chlorofluorocarbons. **SANYO Airconditioners Europe S.r.l. is the sales company for the SANYO air conditioners in Europe,** a leader in the field of air conditioning equipments, with a wide variety of products based upon environment-friendly technology. We are dedicated to sharing **SANYO's management philosophy** which is "We are committed to becoming an indispensable element in the lives of people all over the world."

BRIEF HISTORY OF SANYO AIR CONDITIONER

- 1958 Production of first window air conditioner begins
- 1960 SANYO introduce the world's first heat pump A/C units
- 1961 Started sales of split type and package type air conditioning
- 1970 SANYO launch world's first split type equipped with rotary compressor
- 1971 Production of absorption chiller begins
- 1983 SANYO release first Gas Heat Pump A/C
- 1989 World's first simultaneous heating & cooling VRF system
- 1991 Samples of world's first solar powered A/C released
- 1993 SANYO released first large-capacity VRF system (W-Multi)
- 1995 World's first large capacity heating & cooling VRF system (W-Multi 3 way)
- 2000 SANYO begins direct sales in Europe
- 2002 SANYO launch Gas Heat Pump VRF in Europe
- 2004 Started sales of R410A inverter driven VRF in Europe
- 2005 SANYO releases simultaneous heating & cooling GHP in Europe (3 way ECO-G) SANYO launches Mini VRF for light commercial use (Mini ECO-i)
- 2006 SANYO introduce new R410A GHP units and new VRF system's range

SANYO's New Vision 'Think GAIA'

SANYO



SANYO's mission is to 'restore a beautiful Earth to the children of the future' and using 'Sustainability' (Symbiotic Evolution) as a keyword. SANYO will aim to 'become a company that pleases life and the Earth', and 'Think GAIA' will be the new vision guiding SANYO. In order to contribute to GAIA, SANYO will knit together various proprietary technology competences as 'solutions that add value to the Earth' and thus, aim to become a global solutions provider. This would, in turn, lead to significant business chances in the increasingly globalizing world markets. Based on this vision, the 'SANYO EVOLUTION PROJECT' is launched. The new Project is introduced for the realization of SANYO's new vision - 'THINK GAIA', and its major programs.



Photocopy machine



Absorption Chiller



Commercial refrigerator



VCR Compressor



Gas engine driven heat pump

SANYO Airconditioners Technology

SANYO

High Energy Efficiency

Sanyo conforms to the 2002/91/EC Directive - 92/75/EEC 'Energy labelling Directive (ELD)', which is applicable from June 2004 on all air conditioning products up to 12 kW cooling capacity. The DC inverter technology helps us to achieve the 'A' class, the highest level of energy efficiency which is clearly indicated on the standard labelling system.

A Class

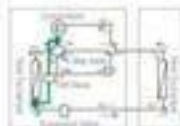
Twin rotary compressor

The dual rotors revolve smoothly in a well-balanced fashion for stable and efficient performance. This also contributes to increased comfort and rapid cooling, as well as the unit's extra quiet, economical and reliable operation.



No reverse cycle operation

Sanyo hot-gas defrost valve avoids uncomfortable conditions during defrosting functions ensuring continuous operation even in very low ambient temperature. A comfortable room temperature is kept while minimizing the decline of indoor air temperature.



Built-in temperature sensor

The temperature sensor incorporated into the remote controller monitors the temperature around you. Placing the sensor remote controller at your bedside you can enjoy comfortable warmth throughout the night.





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SANYO

SANYO Residential Air Conditioners
are ideally suitable for use in your own home

Its stylish and compact design will fit beautifully into any surroundings. This is the next generation SANYO air conditioners feature cutting edge technology to provide total comfort.

They are available with compressor constant speed or inverter multi and single split in heat pump and single split cooling only.

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SAP-KCRV94EHDX • SAP-KCRV124EHDX

Power Range from 2.65 kW to 3.5 kW

INVERTER HEAT PUMP					
		size 94		size 124	
Performance		Cooling	Heating	Cooling	Heating
Capacity	kW	2.9-2.40-1.5	3.9-3.8-2.3	3.9-3.5-2.2	3.9-3.8-2.3
Power input	kW	268-120-130	268-229-238	268-275-145	268-240-240
SEER / COP		5.30	5.30	4.30	4.25
Energy class		A	A	A	A
Running expense	€	1.9-2.4-1.9	1.9-2.2-1.9	1.9-2.5-1.9	1.9-2.2-1.9
Annual energy consumption (cooling)	kWh	265	-	421.5	-

		SAP-KCRV94EHDX		SAP-KCRV124EHDX	
Refrigerant (R)	kg	1.9	2.3	2.9	3.5
Minimum service	h	31	32	32	33
Sound Power Level (dB)		22/24/26/28	22/24/26/28	22/24/26/28	22/24/26/28
Sound Pressure Level (dB(A))		31	32	31	31
Dimensions (HxWxD)	mm	265x265x70	365x265x70	365x265x70	365x265x70
Net weight	kg	12.5	13.5	13.5	13.5
Power supply	V (ph, Hz)	230V, 1-Ph, 50		230V, 1-Ph, 50	

		SAP-KCRV94EHDX		SAP-KCRV124EHDX	
Outdoor Unit					
Sound Power Level (dB)		31	32	32	33
Sound Pressure Level (dB(A))		40	39	39	39
Dimensions (HxWxD)	mm	565x765x295	565x765x295	565x765x295	565x765x295
Net weight	kg	42	42	42	42
Power supply	V (ph, Hz)	230V, 1-Ph, 50		230V, 1-Ph, 50	

*Noise indoor and outdoor is based on standard. SAP-KCRV94EHDX is supplied without any pipe.

		size 94		size 124	
Refrigerant circuit					
Tube diameter (mm)		6.4 (1/4) / 9.5 (3/8)	6.4 (1/4) / 9.5 (3/8)	6.4 (1/4) / 9.5 (3/8)	6.4 (1/4) / 9.5 (3/8)
Max piping length	m	15	15	15	15
Max elevation diff. - S/L (m)		40	40	40	40
Charging piping length	m	7.5	7.5	7.5	7.5
Amount of additional refrigerant	g/m	15	15	15	15

Rating conditions
Cooling: indoor air temperature 27°C (80°F) DB, 19°C (66°F) WB, outdoor air temperature 35°C (95°F) DB, 24°C (75°F) WB
Heating: indoor air temperature 20°C (68°F) DB, outdoor air temperature 7°C (45°F) DB, 6°C (43°F) WB



		PRICE	
Indoor unit price	€	500.00	600.00
Outdoor unit price	€	500.00	600.00
Set price	€	1,000.00	1,200.00



Remote control



Shiki Sai Kan



SAP-KRV_EHDX

Sanyo's flagship model integrates cutting edge technology including the industry's top-class energy saving design, a wide array of airflow control and heating/cooling operation down to -15°C



SAP-KRV_EHDX

- Amazing performance in energy-saving: COP up to 5.0
- Sleek & stylish panel design in a choice from 7 designer colors
- Non-reverse cycle defrosting system for no-stop heating operation
- Cooling & heating operation down to -15°C
- LED photocatalytic sterilization function features excellent performance against odors, germs and bacteria
- Exclusive multi-functional wireless remote control with built-in temperature sensor
- 3-D air flow
- Ion generator refreshes your room with negative ions
- Air clean quiet filter
- Super quiet: 22 dB-A
- Night set back/Economy mode function ensures gentle and saving energy cooling and heating

SAP-KCRV93EHFP • SAP-KCRV123EHFP
SAP-KCRV184EH • SAP-KCRV244EH

Power Range from 2.65 kW to 7.1 kW

Performance	kW	INVERTER HEAT PUMP				INVERTER HEAT PUMP				INVERTER HEAT PUMP				INVERTER HEAT PUMP			
		size 93		size 123		size 184		size 244		size 93		size 123		size 184		size 244	
Cooling	9.3	10.1/10.1	10.1/10.1	10.1/10.1	10.1/10.1	10.1/10.1	10.1/10.1	10.1/10.1	10.1/10.1	10.1/10.1	10.1/10.1	10.1/10.1	10.1/10.1	10.1/10.1	10.1/10.1	10.1/10.1	10.1/10.1
Power input	W	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400
SEER (J/KWh)	W/h	3.31	3.31	3.31	3.31	3.31	3.31	3.31	3.31	3.31	3.31	3.31	3.31	3.31	3.31	3.31	3.31
Energy class	-	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Power output	W	12.4/12.4	12.4/12.4	12.4/12.4	12.4/12.4	12.4/12.4	12.4/12.4	12.4/12.4	12.4/12.4	12.4/12.4	12.4/12.4	12.4/12.4	12.4/12.4	12.4/12.4	12.4/12.4	12.4/12.4	12.4/12.4
Actual energy ratio (cooling)	W/h	3.31	3.31	3.31	3.31	3.31	3.31	3.31	3.31	3.31	3.31	3.31	3.31	3.31	3.31	3.31	3.31

Indoor Unit	SAP-KCRV93EHFP	SAP-KCRV123EHFP	SAP-KCRV184EH	SAP-KCRV244EH
Air circulation (l/s)	400	500	500	500
Max. Power (W)	1.4	2.0	2.0	2.0
Sound Power Level (dB)	35	35	35	35
Sound Pressure Level (dB)	35	35	35	35
Dimensions (mm)	230/230/230	230/230/230	230/230/230	230/230/230
Net weight	9	9	11	12
Power supply	230V-1-50	230V-1-50	230V-1-50	230V-1-50

Outdoor Unit	SAP-KCRV93EHFP	SAP-KCRV123EHFP	SAP-KCRV184EH	SAP-KCRV244EH
Sound Power Level (dB)	50	50	50	50
Sound Pressure Level (dB)	50	50	50	50
Dimensions (mm)	300/300/300	300/300/300	300/300/300	300/300/300
Net weight	24	25	44	50
Power supply	230V-1-50	230V-1-50	230V-1-50	230V-1-50

Refrigerant circuit	size 93	size 123	size 184	size 244
Tube diameter (mm)	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")
Max. piping length (m)	15	15	15	15
Max. elevation diff. (m)	7	7	7	7
Chargeless piping length (m)	7.5	7.5	7.5	7.5
Amount of additional refrigerant (kg)	0	0	0	0

Rating conditions
Cooling: indoor air temperature 27°C (80°F), outdoor air temperature 35°C (95°F)
Heating: indoor air temperature 20°C (68°F), outdoor air temperature 7°C (45°F)



	SAP-KCRV93EHFP	SAP-KCRV123EHFP	SAP-KCRV184EH	SAP-KCRV244EH
Indoor unit price	€400.00	€400.00	€400.00	€400.00
Outdoor unit price	€400.00	€400.00	€400.00	€400.00
Set price	€800.00	€800.00	€800.00	€800.00



Remote control



SAP-KRV.EH(FP)

Ideal solution when you need quiet, efficient and comfortable room air conditioning



SAP-KRV.EH(FP)

- Stylish appearance with flat front panel
- DC-Inverter technology for precise temperature control
- Powerful & comfortable with compact design
- Automatic restart function
- Auto sleep control
- Powerful start function for rapid cooling/heating
- Washable and reusable air clean aqua filter
- Ion generator refreshes your room with negative ions
- Cooling & Heating operation down to -15°C (size 184 & 244)
- Sleek Multi-Functional wireless remote control with built-in temperature sensor
- 24-hour clock with on/off program timer
- Washable front panel
- Quiet operation: 23 dB-A (size 93)
- Night set back/Economy mode function ensures gentle and saving energy cooling and heating

SAP-KCRV93EH • SAP-KCRV123EH

Power Range from 2.65 kW to 3.5 kW

Performance		MINOR HEAT PUMP		size 123	
		Cooling	Heating	Cooling	Heating
Capacity	W	6.9-10.2	6.9-10.2	6.9-10.2	6.9-10.2
Power input	W	250-100-1130	250-90-1040	250-100-1130	250-100-1130
SEER / SCOP		3.21	3.62	3.21	3.61
Energy class		A	A	A	A
Running current	A	1.3-2.0	1.3-2.0	1.3-2.0	1.3-2.0
Actual energy consumption cooling (kWh)		317.5	-	343	-

Indoor Unit		SAP-KR93EH(A)		SAP-KR123EH(A)	
		Cooling	Heating	Cooling	Heating
Air circulation (m³/h)		400	500	500	500
Max. length	m	1.8	1.8	1.8	1.8
Sound Power Level (dB)		50	50	50	50
Sound Pressure Level (dB(A))		25/28/31/34	25/28/31/34	25/28/31/34	25/28/31/34
Dimensions (mm)		250x100x100	250x100x100	250x100x100	250x100x100
Net weight	kg	5	5	5	5
Power supply	V, ph, Hz	230, 1~N, 50	230, 1~N, 50	230, 1~N, 50	230, 1~N, 50

Outdoor Unit		SAP-CR93EH(A)		SAP-CR123EH(A)	
		Cooling	Heating	Cooling	Heating
Sound Power Level (dB)		50	50	50	50
Sound Pressure Level (dB(A))		47	47	47	47
Dimensions (mm)		340x720x200	340x720x200	340x720x200	340x720x200
Net weight	kg	34	34	34	34
Power supply	V, ph, Hz	230, 1~N, 50	230, 1~N, 50	230, 1~N, 50	230, 1~N, 50

Refrigerant circuit		size 93		size 123	
		Cooling	Heating	Cooling	Heating
Use R410A / R32 / R410A		6.35/1.45 / 6.35 (3/8)	6.35/1.45 / 6.35 (3/8)	6.35/1.45 / 6.35 (3/8)	6.35/1.45 / 6.35 (3/8)
Max. piping length	m	15	15	15	15
Max. elevation difference 0.0 - 15	m	7	7	7	7
Chargeable piping length	m	7.5	7.5	7.5	7.5
Amount of additional refrigerant	g/m	12	12	12	12

Rating conditions
Cooling: indoor air temperature (27°C/81°F) DB, total heat exchanger temperature (27°C/81°F) DB
Heating: indoor air temperature (20°C/68°F) DB, total heat exchanger temperature (20°C/68°F) DB

Model	Indoor unit price	Outdoor unit price	Set price	PRICE
SAP-KR93EH(A)	€400.00	€400.00	€800.00	€800.00
SAP-KR123EH(A)	€400.00	€400.00	€800.00	€800.00



Remote control



SAP-KRV.EH(A)



SAP-CRV.EH(A)

Sanyo's DC Inverter is outstanding for its rapid cooling & heating power

- Attractive modern design
- DC-Inverter technology for precise temperature control
- Powerful start function features quickly temperature reaching
- Automatic restart function
- Auto sleep control
- Washable air filter (deodorizing filter)
- Ion freshnet
- Sleek Multi-functional wireless remote control with built-in temperature sensor
- 24-hour clock with on/off program timer
- Washable front panel
- Quiet operation: 23 dB-A (size 93)
- Night set back/Economy mode function ensures gentle and saving energy cooling and heating

SAP-KCR74EH • SAP-KCR94EH • SAP-KCR124EH
SAP-KCR184EH/DH • SAP-KCR224EH/DH

Power Range from 2.2 kW to 6.4 kW

Performance		CONSTANT SPEED HEAT PUMP									
		size 74		size 94		size 124		size 184		size 224	
		Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating
Capacity	kW	2.2	3.3	3.9	5.8	5.5	8.8	9.7	9.8	7.2	7.2
Power input	W	505	590	625	630	1060	1100	1460	1580	2275	2040
SEER / COP		6.9/3	3.2/1	3.4/1	3.4/1	3.2/1	3.4/1	3.2/1	3.4/1	2.9/1	3.2/1
Energy class		A	A	A	A	A	A	A	A	C	C
Running expenses 1 kWh / 1 kWh		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Annual energy consumption (cooling)	kWh	240.5	-	412.5	-	340	-	380	-	1137.5	-

Indoor Unit		SAP-KCR74EH(A)		SAP-KCR94EH(A)		SAP-KCR124EH(A)		SAP-KCR184EH(A)		SAP-KCR224EH(A)	
		Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating
Air circulation (l/s)		430	430	430	500	500	520	500	500	500	500
Maximum pressure (Pa)		1.2	-	1.2	-	1.2	-	1.2	-	1.2	1.2
Sound Power Level (dB-A)		47	48	48	49	52	54	53	52	56	57
Sound Pressure Level (dB-A)		32/34/36	34/37/39	34/36/38	36/39/41	38/40/42	40/43/45	38/40/42	37/39/41	41/43/45	43/45/47
Dimensions (mm)		256x180x78	256x180x78	256x180x78	256x180x78	256x180x78	256x180x78	256x180x78	256x180x78	256x180x78	256x180x78
Net weight	kg	10	10	10	10	10	10	10	10	12	12
Power supply	V, Hz, Ph	230, 1~N, 50		230, 1~N, 50		230, 1~N, 50		230, 1~N, 50		230, 1~N, 50	

Indoor Unit		SAP-CR74EH(A)		SAP-CR94EH(A)		SAP-CR124EH(A)		SAP-CR184EH(A)		SAP-CR224EH(A)	
		Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating
Sound Power Level (dB-A)		42	44	44	46	47	49	47	46	49	51
Sound Pressure Level (dB-A)		30	32	32	34	34	36	35	34	37	39
Dimensions (mm)		146x126x55	146x126x55	146x126x55	146x126x55	146x126x55	146x126x55	146x126x55	146x126x55	146x126x55	146x126x55
Net weight	kg	30	30	30	30	30	30	30	30	30	30
Power supply	V, Hz, Ph	230, 1~N, 50		230, 1~N, 50		230, 1~N, 50		230, 1~N, 50		230, 1~N, 50	

Refrigerant circuit		size 74		size 94		size 124		size 184		size 224	
		Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating
Tube diameter (mm)		1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Max piping length (m)		15	15	15	15	15	15	15	15	15	15
Max elevation diff. (m)		15	15	15	15	15	15	15	15	15	15
Charged piping length (m)		15	15	15	15	15	15	15	15	15	15
Amount of additional refrigerant (g)		15	15	15	15	15	15	15	15	15	15

Operating conditions
Cooling: indoor air temperature 27°C (81°F) DB, outdoor air temperature 35°C (95°F) DB
Heating: indoor air temperature 20°C (68°F) DB, outdoor air temperature 7°C (45°F) DB

Specifications subject to change without notice



		PRICE	
		Indoor unit price	Outdoor unit price
Indoor unit price	Euro	180.00	180.00
Outdoor unit price	Euro	180.00	180.00
Set price	Euro	1,000.00	1,200.00



Remote control



SAP-KR..EH(A)

All you need in an attractive and compact design



SAP-CR..EH(A)

- Lightweight and compact
- Quiet mode from 25 dB-A
- Auto restart after power failure
- Wide model range available: single-phase and three-phase
- Sleek Multi-functional wireless remote control with built-in temperature sensor
- Hot start heating system prevents any cold starts
- Automatic cooling & heating changeover to maintain the desired temperature
- 24-hour clock with on/off program timer
- Air sweep control provide comfort in every corner
- Easy-to-clean filter prevents mould or bacteria from occurring
- Negative ion generator (size 184 & 224)
- Washable front panel
- Night set back/Economy mode function ensures gentle and saving energy cooling and heating

SAP-KCLR74E • SAP-KCLR94E • SAP-KCLR124E
SAP-KCLR184E/D • SAP-KCLR224D

Power Range from 2.2 kW to 6.4 kW

CONSTANT SPEED LOW AMBIENT						
Performance	size 74	size 94	size 124	size 184	size 224	
Capacity	2.2	2.65	3.5	5.15	6.4	
Power input	660	825	1080	1690	2275	
EER	3.21	3.21	3.21	3.21	3.21	
Energy class	A	A	A	A	C	
Running current (A) / (A)	3.1	3.7	4.9	7.9 / 3.3	8.8	
Annual energy consumption (kWh/year)	342.0	412.5	540	880	1127.5	
Indoor Unit						
AP-6074E(U)	SAP-6074E(U)	SAP-6094E(U)	SAP-6124E(U)	SAP-6184E(U)	SAP-6224E(U)	
Net connection (in)	1/2"	1/2"	1/2"	1/2"	1/2"	
Min/Max removal	1.3	1.8	3.0	4.0	5.0	
Sound Power Level (dB-A)	42	49	52	57	60	
Sound Pressure Level (dB-A)	25/26/27/28	25/26/27/28	25/26/27/28	30/31/32/33	32/33/34/35	
Dimensions (mm)	225x425x100	225x425x100	225x425x100	225x425x100	225x425x100	
Net weight	10	11	13	17	19	
Power supply	230V, 1-ø, 50	230V, 1-ø, 50	230V, 1-ø, 50	230V, 1-ø, 50	230V, 1-ø, 50	
Outdoor Unit						
AP-6074E(U)	SAP-6074E(U)	SAP-6094E(U)	SAP-6124E(U)	SAP-6184E(U)	SAP-6224E(U)	
Sound Power Level (dB-A)	50	59	61	67	70	
Sound Pressure Level (dB-A)	35	42	45	50	53	
Dimensions (mm)	345x250x55	345x250x55	345x250x55	470x250x55	570x250x55	
Net weight	10	11	13	17	19	
Power supply	230V, 1-ø, 50	230V, 1-ø, 50	230V, 1-ø, 50	230V, 1-ø, 50	230V, 1-ø, 50	
Refrigerant circuit						
Tube diameter (mm)	1/4"	1/4"	1/4"	1/4"	1/4"	
Max piping length (m)	15	15	15	20	20	
Max elevation diff. (m) -15	7	7	7	7	7	
Charge piping length (m)	15	15	15	20	20	
Amount of additional refrigerant (g)	15	15	15	25	25	
Rating conditions						
Cooling indoor air temperature (°C) 26/19/16	26/19/16	26/19/16	26/19/16	26/19/16	26/19/16	
Heating indoor air temperature (°C) 19/16/12	19/16/12	19/16/12	19/16/12	19/16/12	19/16/12	



PRICE		
Indoor unit price	EUR	100.00
Outdoor unit price	EUR	100.00
Net price	EUR	200.00



Residential

Remote control



SAP-KR-E(A)

All you need in an attractive and compact design



SAP-CLR-E(A)

- Lightweight and compact
- Continuous cooling operation down to -15°C
- Quiet mode from 25 dB-A
- Auto restart after power failure
- Single-phase and three-phase models available
- Multi-functional wireless remote control with built-in temperature sensor
- Negative ion generator (size 184 & 224)
- Night set back/Economy mode function ensures gentle and saving energy cooling and heating
- Easy-to-clean filter prevents mould or bacteria from occurring

SAP-KCR74E • SAP-KCR94E • SAP-KCR124E
SAP-KCR184E/D • SAP-KCR224E

Power Range from 2.2 kW to 6.4 kW

CONSTANT SPEED COOLING ONLY					
	size 74	size 94	size 124	size 184	size 224
Capacity	2.2	2.85	3.5	5.15	6.4
Power input	865	975	1080	1680	2075
SEER	3.21	3.21	3.21	3.20	3.21
Energy class	A	A	A	C	C
Running currents (A) / 1/2" / 1/4"	3.1	3.7	4.9	7.1 / 5.3	8.8
Annual energy consumption (cooling) kWh	342.9	412.9	485	688	1127.9

Indoor Unit	SAP-KCR74E	SAP-KCR94E	SAP-KCR124E	SAP-KCR184E	SAP-KCR224E
Air circulation (m/s)	4.5	4.5	5.0	5.0	5.0
Max. air flow (m³/h)	1.3	1.8	2.0	2.3	2.3
Sound Power Level (dB)	45 A	45	52	53	56
Sound Pressure Level (dB) (A) (1m)	35/35/31/28	35/35/31/28	35/35/31/28	35/35/31/28	35/35/31/28
Dimensions (HxWxD)	295x425x100	295x425x100	295x425x100	295x425x100	295x425x100
Net weight	10	10	12	12	12
Power supply	V (A) Hz		230, 1-16, 50		

Outdoor Unit	SAP-KCR74E	SAP-KCR94E	SAP-KCR124E	SAP-KCR184E	SAP-KCR224E
Sound Power Level (dB)	55 A	55	61	67	69
Sound Pressure Level (dB)	45 A	45	49	53	57
Dimensions (HxWxD)	340x220x70	340x220x70	340x220x70	340x220x70	340x220x70
Net weight	10	10	12	12	12
Power supply	V (A) Hz	230, 1-16, 50	230, 1-16, 50	230, 1-16, 50	230, 1-16, 50

Refrigerant circuit	size 74	size 94	size 124	size 184	size 224
Tube diameter (mm) (mm)	6.35/12.7/15.88/25.4	6.35/12.7/15.88/25.4	6.35/12.7/15.88/25.4	6.35/12.7/15.88/25.4	6.35/12.7/15.88/25.4
Max. piping length (m)	15	15	15	30	30
Max. elevation with 1/2" / 1/4"	4	2	2	7	7
Chargeless piping length (m)	7.5	7.5	7.5	15	15
Amount of additional refrigerant (g)	15	15	15	30	30

Operating conditions
Cooling: indoor air temperature 27°C (81°F) / outdoor air temperature 35°C (95°F) / 50% RH
Heating: indoor air temperature 20°C (68°F) / outdoor air temperature 7°C (45°F) / 50% RH

Specifications subject to change without notice



	PRICE
Indoor unit price	€400.00
Outdoor unit price	€400.00
Set price	€ 800.00



Residential

Remote control



SAP-KR_E(A)

All you need in an attractive
and compact design



SAP-CR_E(A)

- Lightweight and compact
- Quiet mode from 25 dB(A)
- Auto restart after power failure
- Single-phase and three-phase models available
- Sleek Multi-functional wireless remote control with built-in temperature sensor
- Negative ion generator (size 184 & 224)
- Night set back/Economy mode function ensures gentle and saving energy cooling and heating
- Easy-to-clean filter prevents mould or bacteria from occurring

SAP-FCRV93EH • SAP-FTCRV123EH
SAP-FTCRV184EH • SAP-FTCRV244EH

Power Range from 2.65 kW to 7.1 kW

Performance		INVERTER HEAT PUMP							
		size 93		size 123		size 184		size 244	
Capacity	kW	12.45*	13.8*	13.3*	14.2*	15.12*	16.8*	17.1*	18.5*
Power Input	kW	-	-	-	-	-	-	-	-
SEER (JIS)	-	-	-	-	-	-	-	-	-
Energy class	-	-	-	-	-	-	-	-	-
Running sounds	dB	-	-	-	-	-	-	-	-
Average energy cost cooling	\$/kWh	-	-	-	-	-	-	-	-

Indoor Unit		SAP-FCRV93EH	SAP-FTCRV123EH	SAP-FTCRV184EH	SAP-FTCRV244EH
Air conditioner (2)	split	1	1	1	1
Modular system	1.5inch	-	-	-	-
Sound Power Level (2)	dB-A	-	-	-	-
Sound Pressure Level (3.5m)	dB-A	-	-	-	-
Dimensions (HxWxD)	mm	700x500x200	680x500x180	800x600x180	800x600x180
Net weight	kg	18.8	23.5	23.5	23.5
Power supply	3 phase	230 V-A, 50	230 V-A, 50	230 V-A, 50	230 V-A, 50

Outdoor Unit		SAP-CRV93EH	SAP-CRV123EH	SAP-CRV184EH	SAP-CRV244EH
Sound Power Level (2)	dB-A	38	39	41	41
Sound Pressure Level (2)	dB-A	48	47	49	49
Dimensions (HxWxD)	mm	340x750x265	340x750x265	470x800x305	740x800x320
Net weight	kg	35	35	44	59
Power supply	3 phase	230 V-A, 50	230 V-A, 50	230 V-A, 50	230 V-A, 50

Refrigerant circuit		size 93	size 123	size 184	size 244
Tube diameter (nominal)	mm	6.35 (1/4) / 9.52 (3/8)	6.35 (1/4) / 9.52 (3/8)	6.35 (1/4) / 12.7 (1/2)	6.35 (1/4) / 15.88 (5/8)
Max piping length	m	15	15	30	30
Max elevation diff. (3.3 / 1.5)	m	7	7	15	15
Chargeable piping length	m	1.8	1.8	18	18
Amount of additional refrigerant	kg	15	15	25	25

Rating conditions
Cooling: indoor air temperature 27°C (80°F) RH 50%; outdoor air temperature 35°C (95°F) RH 50%
Heating: indoor air temperature 20°C (68°F) outdoor air temperature 7°C (45°F) RH 50%

Specifications subject to change without notice
Model Size 93, 123, 184 and 244 are inverter type
* Data not available at the time of publication



		PRICE	
Indoor unit price	EUR	540.00	600.00
Outdoor unit price	EUR	580.00	680.00
Set price	EUR	1,080.00	1,280.00

04900A



Residential

Remote control



SAP-FCRV93EH



SAP-FTCRV...EH

The air conditioner can either be mounted on the ceiling or placed on the floor



SAP-CRV...EH(FP)

- DC-Inverter technology for precise temperature control
- Most suitable air flow for heating operation
- Powerful & comfortable with compact design
- Lightweight and compact
- Automatic restart function
- Auto sweep control
- Powerful start function for rapid cooling/heating
- Automatic cooling & heating (changeover) to maintain the desired temperature
- Cooling & Heating operation down to -15°C (size 184 & 244)
- Sleek Multi-functional wireless remote control with built-in temperature sensor
- 24-hour clock with on/off program timer
- Easy-to-clean filter prevents mould or bacteria from occurring
- Washable front panel
- Night set back/Economy mode function ensures gentle and saving energy cooling and heating

SAP-FCR94EH • SAP-FTCR124EH
SAP-FTCR184EH • SAP-FTCR224EH

Power Range from 2.65 kW to 6.4 kW

Performance		CONSTANT SPEED HEAT PUMP							
		size 94		size 124		size 184		size 224	
Cooling	W	2.65	3.2	3.9	4.25	5.15	5.7	6.8	7.2
Heating	W	3.2	3.9	4.25	5.15	5.7	6.8	7.2	7.2
SEER (COP)	W/W	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
Energy class		A	A	A	A	A	A	A	A
Running ampere	A	3.9	3.9	3.9	3.7	3.7	3.7	3.7	3.7
Annual energy cons. (cooling)	kWh	412.5	-	517.5	-	-	-	-	-

Indoor Unit		SAP-FR94EH(A)		SAP-FTCR124EH(A)		SAP-FTCR184EH(A)		SAP-FTCR224EH(A)	
		size 94	size 124	size 184	size 224	size 184	size 224	size 224	size 224
Air circulation (l/s)	l/s	400	400	400	400	400	400	400	400
Maximum pressure (Pa)	Pa	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Sound Power Level (dB)	dB-A	54	54	54	54	54	54	54	54
Sound Pressure Level (dB)	dB-A	34-40/40	34-40/40	34-40/40	34-40/40	34-40/40	34-40/40	34-40/40	34-40/40
Dimensions (mm)	mm	700x500x200	800x500x180	800x500x180	800x500x180	800x500x180	800x500x180	800x500x180	800x500x180
Net weight	kg	18.8	23.5	23.5	23.5	23.5	23.5	23.5	23.5
Power supply	V, A, Hz	230, 1-16, 50							

Outdoor Unit		SAP-CR94EH(A)		SAP-CR124EH(A)		SAP-CR184EH(A)		SAP-CR224EH(A)	
		size 94	size 124	size 184	size 224	size 184	size 224	size 224	size 224
Sound Power Level (dB)	dB-A	50	50	50	50	50	50	50	50
Sound Pressure Level (dB)	dB-A	47	49	49	50	50	50	50	50
Dimensions (mm)	mm	540x720x250	580x780x250	670x800x250	670x800x250	670x800x250	670x800x250	670x800x250	670x800x250
Net weight	kg	33	37	43	43	43	43	43	43
Power supply	V, A, Hz	230, 1-16, 50							

Refrigerant details		size 94		size 124		size 184		size 224	
		size 94	size 124	size 184	size 224	size 184	size 224	size 224	size 224
Refrigerant (R410A/R32)	mm	6.25/1.6 / 8.5/2.0	6.25/1.6 / 8.5/2.0	6.25/1.6 / 12.7/3.2	6.25/1.6 / 12.7/3.2	6.25/1.6 / 12.7/3.2	6.25/1.6 / 12.7/3.2	6.25/1.6 / 12.7/3.2	6.25/1.6 / 12.7/3.2
Max piping length (m)	m	15	15	30	30	30	30	30	30
Max vertical lift (m)	m	7	7	7	7	7	7	7	7
Chargeable piping length (m)	m	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Amount of additional refrigerant (g)	g	15	15	25	25	25	25	25	25

Operating conditions: Cooling: indoor air temperature (T_{in}) 26/19°C, outdoor air temperature (T_{out}) 35/21°C; Heating: indoor air temperature (T_{in}) 19/13°C, outdoor air temperature (T_{out}) 7/5°C.



	PRICE
Indoor unit price	EUR 300.00
Outdoor unit price	EUR 300.00
Net price	EUR 600.00

Remote control



SAP-FR94EH(A)



SAP-FTR...EH(A)

The air conditioner can either be mounted on the ceiling or placed on the floor



SAP-CR...EH(A)

- Lightweight and compact
- Low noise design
- Auto restart after power failure
- Most suitable air flow for heating operation
- Desk: Multi-functional wireless remote control with built-in temperature sensor
- Hot start heating system prevents any cold blasts in the room
- Automatic cooling & heating: changes over to maintain the desired temperature
- 24-hour clock with on/off program timer
- Automatic flap control provide uniform air flow in the room
- Easy-to-clean filter prevents mould or bacteria from occurring
- Washable front panel
- Night set back/Economy mode function ensures gentle and saving energy cooling and heating

SAP-FCLR94E • SAP-FTCLR124E
SAP-FTCLR184E/D • SAP-FTCLR224D

Power Range from 2.65 kW to 6.4 kW

Performance		CONSTANT SPEED LINE AIR UNIT			
		size 94 Cooling	size 124 Cooling	size 184 Cooling	size 224 Cooling
Capacity	kW	2.55	3.5	5.15	6.4
Power Input	kW	0.55	0.85	1.25	1.55
EER		3.21	3.41	4.1	4.1
Energy class	A	A	A	A	A
Running speed (ft/s)		3.9	5.2	7.6	9.4
Average energy consumption (cooling)	kWh	0.23	0.27	0.31	0.38

Indoor Unit		SAP-FR94E(A)	SAP-FR124E(A)	SAP-FR184E(A)	SAP-FR224E(A)
Refrigerant (kg)		4.0	5.0	7.0	8.5
Maximum velocity	m/s	1.8	2.3	3.4	4.1
Sound Power Level (dB)		38-4	42	48	52
Sound Pressure Level (dB)		38-4	42	48	52
Operating pressure	mmHg	540-550	540-550	540-550	540-550
Net weight	kg	18.8	23.2	33.2	40.2
Power supply	V, Ph, Hz	230, 1-Ph, 50			

Indoor Unit		SAP-CLR94E(A)	SAP-CLR124E(A)	SAP-CLR184E(A)	SAP-CLR224E(A)
Refrigerant (kg)		4.0	5.0	7.0	8.5
Maximum velocity	m/s	1.8	2.3	3.4	4.1
Sound Power Level (dB)		38-4	42	48	52
Sound Pressure Level (dB)		38-4	42	48	52
Operating pressure	mmHg	540-550	540-550	540-550	540-550
Net weight	kg	18.8	23.2	33.2	40.2
Power supply	V, Ph, Hz	230, 1-Ph, 50			

Refrigerant circuit		size 94	size 124	size 184	size 224
Tube diameter (Refrigerant)	mm	6.35/12.7 • 9.52/15.8	6.35/12.7 • 9.52/15.8	6.35/12.7 • 12.7/19.0	6.35/12.7 • 15.8/25.4
Max piping length	m	15	15	30	30
Max elevation difference (H - L)	m	7	7	7	7
Chargeable piping length	m	7.5	7.5	7.5	10
Amount of additional refrigerant	g	15	15	25	25

Rating conditions
Cooling: indoor air temperature (T_i) 26/19°C DB, outdoor air temperature (T_o) 35/24°C DB
Heating: indoor air temperature (T_i) 19°C DB, outdoor air temperature (T_o) 7°C DB, 95% RH

Specifications subject to change without notice.
Note: Size 184 and 224 are optional size.
*Data are approximate at the time of publication.



Configuration	Price
Indoor unit only	€ 100.00
Outdoor unit only	€ 100.00
Set price	€ 200.00



Remote control



SAP-FR94E(A)



SAP-FTR...E(A)

The air conditioner can either be mounted on the ceiling or placed on the floor



SAP-CLR...E(A)

- Low ambient function ensures continuous cooling operation even in cold region
- Lightweight and compact
- Low noise design
- Auto restart after power failure
- Smart Multi-functional wireless remote control with built-in temperature sensor
- 24-hour clock with on/off program timer
- Automatic flap control provides uniform air flow in the room
- Easy-to-clean filter prevents mold or bacteria from occurring
- Washable front panel
- Night set back/Economy mode function ensures gentle and saving energy cooling

SAP-FCR94E • SAP-FTCR124E
SAP-FTCR184E/D • SAP-FTCR224E

Power Range from 2.65 kW to 6.4 kW

CONSTANT SPEED CEILING ONLY					
Performance		size 94 Cooling	size 124 Cooling	size 184 Cooling	size 224 Cooling
Capacity	kW	2.55	3.8	5.15	6.4
Power input	W	525	785	1050	1310
SEER	W/E	3.21	3.41	3.41	3.41
Energy class		A	A	A	A
Running current (A) / 7.5/10		2.3	3.3	4.3	5.3
Actual energy consumption (cooling) kWh		0.113	0.173	0.233	0.293

		SAP-FCR94E	SAP-FTCR124E	SAP-FTCR184E	SAP-FTCR224E
Air circulation (m³/h)		400	500	600	700
Moisture removal (g/h)		1.0	1.3	1.6	1.9
Sound Power Level (dB)		38 A	39	40	41
Sound Pressure Level (dB) (1m)		36 (A)	37 (A)	38 (A)	39 (A)
Dimensions (mm)		295/295/295	355/355/355	455/455/455	555/555/555
Net weight (kg)		10.5	12.5	15.5	18.5
Power supply		2, 230 V, 50 Hz	2, 230 V, 50 Hz	2, 230 V, 50 Hz	2, 230 V, 50 Hz

		SAP-CR94E/A	SAP-CR124E/A	SAP-CR184E/A	SAP-CR224E/A
Sound Power Level (dB)		38	39	40	41
Sound Pressure Level (dB) (1m)		37	38	39	40
Dimensions (mm)		295/295/295	355/355/355	455/455/455	555/555/555
Net weight (kg)		10	12	15	18
Power supply		2, 230 V, 50 Hz	2, 230 V, 50 Hz	2, 230 V, 50 Hz	2, 230 V, 50 Hz

		size 94	size 124	size 184	size 224
Tube diameter (mm)		6.35/12.7/15.875	6.35/12.7/15.875	6.35/12.7/15.875	6.35/12.7/15.875
Max piping length (m)		15	15	20	25
Max elevation difference (m) -10		7	7	7	7
Chargeable piping length (m)		7.5	7.5	7.5	7.5
Amount of additional refrigerant (g)		15	15	20	25

Operating conditions
Cooling: indoor air temperature (27°C (80°F) / 24°C (75°F) / 21°C (70°F) / 18°C (64°F)
Heating: indoor air temperature (21°C (70°F) / 18°C (64°F) / 15°C (59°F) / 12°C (54°F)

Specifications subject to change without notice
Note: SAP-184 and SAP-224 are standard size



		PRICE
Model and price	Euro	500.00
Model and price	Euro	500.00
Set price	Euro	1,000.00



Residential

Remote control



SAP-FR94E(A)



SAP-FTR...E(A)

The air conditioner can either be mounted on the ceiling or placed on the floor



SAP-CR...E(A)

- Lightweight and compact
- Low noise design
- Auto restart after power failure
- Sleek, Multi-functional wireless remote control with built-in temperature sensor
- 24-hour clock with on/off program timer
- Automatic flap control provides uniform air flow in the room
- Easy-to-clean filter prevents mold or bacteria from occurring
- Washable front panel
- Night set back/Economy mode function ensures gentle and saving energy cooling and heating

SAP-XCRV93EH • SAP-XCRV123EH • SAP-XCRV184EH

Power Range from 2.65 kW to 5.15 kW

SAP-XCRV HEAT PUMP							
Performance		size 93		size 123		size 184	
		Cooling	Heating	Cooling	Heating	Cooling	Heating
Copilot	4.8	12.45	15.6	15.5	14.5	15.15	16.5
Power input	W	-	-	-	-	-	-
ER / COP	9/10	-	-	-	-	-	-
Energy class	A	-	-	-	-	-	-
Running expenses	A	-	-	-	-	-	-
Annual energy cons. cooling	kWh	-	-	-	-	-	-

SAP-XCRV			
Model Unit	SAP-XCRV93EH	SAP-XCRV123EH	SAP-XCRV184EH
Re-circulation (h)	9/25	-	-
Maximum turning	3.5m/s	-	-
Sound Power Level (dB)	dB A	-	-
Sound Power Level (dB)	dB A	-	-
Dimensions (HxWxL) - Unit	mm	2965/754/75	2965/754/75
Dimensions (HxWxL) - Panel	mm	545/735/735	545/735/735
Net weight - Unit	kg	16.5	16.5
Net weight - Panel	kg	2.5	2.5
Power supply	5.0/5.76	230, 1~4, 50	230, 1~4, 50

SAP-CRV			
Model Unit	SAP-CRV93EH	SAP-CRV123EH	SAP-CRV184EH
Sound Power Level (dB)	dB A	50	50
Sound Power Level (dB)	dB A	47	47
Dimensions (HxWxL) - Unit	mm	545/735/735	545/735/735
Dimensions (HxWxL) - Panel	mm	34	34
Net weight - Unit	kg	2.5	2.5
Power supply	5.0/5.76	230, 1~4, 50	230, 1~4, 50

Refrigerant circuit			
	size 93	size 123	size 184
Tube diameter - Return/White	mm	6.35 (1/4) / 9.52 (3/8)	6.35 (1/4) / 9.52 (3/8)
Max piping length	m	15	30
Max elevation diff. S/L - L/S	m	7	15
Chargeless piping length	m	7.5	15
Amount of additional refrigerant	g	15	35

Rating condition
Cooling: indoor air temperature 27°C (80°F) / outdoor air temperature 35°C (95°F) / wet bulb temperature 24°C (75°F)
Heating: indoor air temperature 20°C (68°F) / outdoor air temperature 7°C (45°F) / wet bulb temperature 6°C (43°F)

Specifications subject to change without notice.
Note: Size 93, 123 and 184 are for reference only.
*Data not available at the time of publication.



PRICE		
Indoor unit price	Unit	100.00
Outdoor unit price	Unit	100.00
Set price	Unit	200.00

04900



Remote control



Panel



PNR-XMRV93EH



SAP-XCRV...EH

Super compact design to fit precisely 60x60 standard ceiling modules



SAP-CRV...EH(FP)

- Quick and easy installation on the ceiling
- Lightweight and compact design fit precisely into standard ceiling modules
- DC-inverter technology for precise temperature control
- Most suitable air flow for heating operation
- Lightweight and compact
- Automatic restart function
- Auto air swing control provides uniform air flow in the room
- Powerful start function for rapid cooling/heating
- Automatic cooling and heating changeover to maintain the desired temperature
- Cooling & heating operation down to -15°C (only size 184)
- The built-in drain pump performs to raise the drain pipe up to 50cm
- Sleek Multi-functional wireless remote control with built-in temperature sensor
- 24-hour clock with on/off program timer
- Easy-to-clean filter prevents mold or bacteria from occurring
- The modern style panel can be easily removed and washed
- Quiet operation
- Night set back/Economy mode function ensures gentle and saving energy cooling and heating

Power Range from 2.87 kW to 5.15 kW



Super compact design to fit precisely
B20B standard ceiling modules

- Quick and easy installation on the ceiling
- Lightweight and compact design fits precisely into standard ceiling modules
- Low noise design
- Auto restart after power failure
- Auto air saving control provides uniform air flow in the room
- Sleek Multi-functional wireless remote control with built-in temperature sensor
- Hot start heating system prevents any cold blasts in the room
- The built-in drain pump performs to raise the drain pipe up to 50cm.
- Automatic cooling & heating changes to maintain the desired temperature
- 24-hour clock with on/off program timer
- Easy-to-Clean filter prevents mould or bacteria from occurring
- The modern style panel can be easily removed and washed
- Night set back/Economy mode function ensures gentle and saving energy cooling and heating

SAP-XCLR94E • SAP-XCLR124E • SAP-XCLR184E/D

Power Range from 2.87 kW to 5.15 kW

Semi-concealed 4 way constant speed type				
Performance		size 94	size 124	size 184
Cooling capacity	kW	2.87	3.45	5.15
Power input	W	475	1075	-
SEER	W/W	3.29	3.4	-
Energy class	-	A	B	-
Running temperature (°C)	°C	4.5	5.2	-
Average energy consumption	W/h	437.3	537.3	-

Outdoor Unit		SAP-94H06(A)	SAP-124H06(A)	SAP-184H06
Refrigerant (kg)	kg	730	730	-
Maximum pressure	MPa	1.0	1.0	-
Sound Power Level (dB)	dB(A)	52	52	-
Sound Pressure Level (dB)	dB(A)	36/39/43	36/39/43	-
Dimensions (HxWxD)	mm	206x754x75	206x754x75	206x754x75
Dimensions (HxWxD) - Panel	mm	64x730x730	64x730x730	64x730x730
Net weight - Unit	kg	16.5	16.5	16.5
Net weight - Panel	kg	2.5	2.5	2.5
Power supply	V, Hz, Ph	230, 1~N, 50		

Outdoor Unit		SAP-94H06(A)	SAP-124H06(A)	SAP-184H06(A)
Sound Power Level (dB)	dB(A)	52	52	52
Sound Pressure Level (dB)	dB(A)	47	49	51
Dimensions (HxWxD)	mm	540x730x200	540x730x200	670x480x200
Net weight	kg	35	37	41
Power supply	V, Hz, Ph	230, 1~N, 50		

Indoor Unit		size 94	size 124	size 184
Tube diameter (Refrigerant)	mm	6.35x4 / 9.52x3/8	6.35x4 / 9.52x3/8	6.35x4 / 9.52x3/8
Max. piping length	m	15	15	30
Max. elevation (HxL) - L	m	7	7	7
Chargeable piping length	m	7.5	7.5	7.5
Amount of additional refrigerant gas	kg	15	15	25

Notes:
Cooling indoor air temperature (27°C/80°F) (A) (C) (D) (E) (F) (G) (H) (I) (J) (K) (L) (M) (N) (O) (P) (Q) (R) (S) (T) (U) (V) (W) (X) (Y) (Z) (AA) (AB) (AC) (AD) (AE) (AF) (AG) (AH) (AI) (AJ) (AK) (AL) (AM) (AN) (AO) (AP) (AQ) (AR) (AS) (AT) (AU) (AV) (AW) (AX) (AY) (AZ) (BA) (BB) (BC) (BD) (BE) (BF) (BG) (BH) (BI) (BJ) (BK) (BL) (BM) (BN) (BO) (BP) (BQ) (BR) (BS) (BT) (BU) (BV) (BW) (BX) (BY) (BZ) (CA) (CB) (CC) (CD) (CE) (CF) (CG) (CH) (CI) (CJ) (CK) (CL) (CM) (CN) (CO) (CP) (CQ) (CR) (CS) (CT) (CU) (CV) (CW) (CX) (CY) (CZ) (DA) (DB) (DC) (DD) (DE) (DF) (DG) (DH) (DI) (DJ) (DK) (DL) (DM) (DN) (DO) (DP) (DQ) (DR) (DS) (DT) (DU) (DV) (DW) (DX) (DY) (DZ) (EA) (EB) (EC) (ED) (EE) (EF) (EG) (EH) (EI) (EJ) (EK) (EL) (EM) (EN) (EO) (EP) (EQ) (ER) (ES) (ET) (EU) (EV) (EW) (EX) (EY) (EZ) (FA) (FB) (FC) (FD) (FE) (FF) (FG) (FH) (FI) (FJ) (FK) (FL) (FM) (FN) (FO) (FP) (FQ) (FR) (FS) (FT) (FU) (FV) (FW) (FX) (FY) (FZ) (GA) (GB) (GC) (GD) (GE) (GF) (GG) (GH) (GI) (GJ) (GK) (GL) (GM) (GN) (GO) (GP) (GQ) (GR) (GS) (GT) (GU) (GV) (GW) (GX) (GY) (GZ) (HA) (HB) (HC) (HD) (HE) (HF) (HG) (HH) (HI) (HJ) (HK) (HL) (HM) (HN) (HO) (HP) (HQ) (HR) (HS) (HT) (HU) (HV) (HW) (HX) (HY) (HZ) (IA) (IB) (IC) (ID) (IE) (IF) (IG) (IH) (II) (IJ) (IK) (IL) (IM) (IN) (IO) (IP) (IQ) (IR) (IS) (IT) (IU) (IV) (IW) (IX) (IY) (IZ) (JA) (JB) (JC) (JD) (JE) (JF) (JG) (JH) (JI) (JJ) (JK) (JL) (JM) (JN) (JO) (JP) (JQ) (JR) (JS) (JT) (JU) (JV) (JW) (JX) (JY) (JZ) (KA) (KB) (KC) (KD) (KE) (KF) (KG) (KH) (KI) (KJ) (KK) (KL) (KM) (KN) (KO) (KP) (KQ) (KR) (KS) (KT) (KU) (KV) (KW) (KX) (KY) (KZ) (LA) (LB) (LC) (LD) (LE) (LF) (LG) (LH) (LI) (LJ) (LK) (LL) (LM) (LN) (LO) (LP) (LQ) (LR) (LS) (LT) (LU) (LV) (LW) (LX) (LY) (LZ) (MA) (MB) (MC) (MD) (ME) (MF) (MG) (MH) (MI) (MJ) (MK) (ML) (MN) (MO) (MP) (MQ) (MR) (MS) (MT) (MU) (MV) (MW) (MX) (MY) (MZ) (NA) (NB) (NC) (ND) (NE) (NF) (NG) (NH) (NI) (NJ) (NK) (NL) (NM) (NO) (NP) (NQ) (NR) (NS) (NT) (NU) (NV) (NW) (NX) (NY) (NZ) (OA) (OB) (OC) (OD) (OE) (OF) (OG) (OH) (OI) (OJ) (OK) (OL) (OM) (ON) (OO) (OP) (OQ) (OR) (OS) (OT) (OU) (OV) (OW) (OX) (OY) (OZ) (PA) (PB) (PC) (PD) (PE) (PF) (PG) (PH) (PI) (PJ) (PK) (PL) (PM) (PN) (PO) (PP) (PQ) (PR) (PS) (PT) (PU) (PV) (PW) (PX) (PY) (PZ) (QA) (QB) (QC) (QD) (QE) (QF) (QG) (QH) (QI) (QJ) (QK) (QL) (QM) (QN) (QO) (QP) (QQ) (QR) (QS) (QT) (QU) (QV) (QW) (QX) (QY) (QZ) (RA) (RB) (RC) (RD) (RE) (RF) (RG) (RH) (RI) (RJ) (RK) (RL) (RM) (RN) (RO) (RP) (RQ) (RR) (RS) (RT) (RU) (RV) (RW) (RX) (RY) (RZ) (SA) (SB) (SC) (SD) (SE) (SF) (SG) (SH) (SI) (SJ) (SK) (SL) (SM) (SN) (SO) (SP) (SQ) (SR) (SS) (ST) (SU) (SV) (SW) (SX) (SY) (SZ) (TA) (TB) (TC) (TD) (TE) (TF) (TG) (TH) (TI) (TJ) (TK) (TL) (TM) (TN) (TO) (TP) (TQ) (TR) (TS) (TT) (TU) (TV) (TW) (TX) (TY) (TZ) (UA) (UB) (UC) (UD) (UE) (UF) (UG) (UH) (UI) (UJ) (UK) (UL) (UM) (UN) (UO) (UP) (UQ) (UR) (US) (UT) (UU) (UV) (UW) (UX) (UY) (UZ) (VA) (VB) (VC) (VD) (VE) (VF) (VG) (VH) (VI) (VJ) (VK) (VL) (VM) (VN) (VO) (VP) (VQ) (VR) (VS) (VT) (VU) (VV) (VW) (VX) (VY) (VZ) (WA) (WB) (WC) (WD) (WE) (WF) (WG) (WH) (WI) (WJ) (WK) (WL) (WM) (WN) (WO) (WP) (WQ) (WR) (WS) (WT) (WU) (WV) (WW) (WX) (WY) (WZ) (XA) (XB) (XC) (XD) (XE) (XF) (XG) (XH) (XI) (XJ) (XK) (XL) (XM) (XN) (XO) (XP) (XQ) (XR) (XS) (XT) (XU) (XV) (XW) (XX) (XY) (XZ) (YA) (YB) (YC) (YD) (YE) (YF) (YG) (YH) (YI) (YJ) (YK) (YL) (YM) (YN) (YO) (YP) (YQ) (YR) (YS) (YT) (YU) (YV) (YW) (YX) (YY) (YZ) (ZA) (ZB) (ZC) (ZD) (ZE) (ZF) (ZG) (ZH) (ZI) (ZJ) (ZK) (ZL) (ZM) (ZN) (ZO) (ZP) (ZQ) (ZR) (ZS) (ZT) (ZU) (ZV) (ZW) (ZX) (ZY) (ZZ)

Specifications subject to change without notice.
Note: Size 184 is a separate line.
Data not available at the time of publication.

Price				
Model	Unit	Price	Model	Unit
SAP-94H06(A)	Unit	1,200.00	SAP-124H06(A)	Unit
SAP-124H06(A)	Unit	1,200.00	SAP-184H06(A)	Unit
SAP-184H06(A)	Unit	1,200.00		



Remote control



Panel



PNR-XR94E/A



SAP-XR94E/A

Super compact design to fit precisely 80x80 standard ceiling modules



SAP-CLR94E/A

- Low ambient function ensures continuous cooling operation even in cold region
- Quick and easy installation on the ceiling
- Lightweight and compact design fit precisely into standard ceiling modules
- Low noise design
- Auto restart after power failure
- Auto air sweep control provides uniform air flow in the room
- Sleek Multi-functional wireless remote

- control with built-in temperature sensor
- The built-in drain pump performs to raise the drain pipe up to 50cm
- 24-hour clock with auto program timer
- Easy-to-clean filter prevents mould or bacteria from occurring
- The modern style panel can be easily removed and washed
- Night set back/Economy mode function ensures gentle and saving energy cooling

SAP-XCR94E • SAP-XCR124E • SAP-XCR184E/D

Power Range from 2.87 kW to 5.15 kW

CONSTANT SPEED COILING UNIT				
Performance		size 94	size 124	size 184
		Cooling	Cooling	Cooling
Capacity	kW	2.87	4.45	5.15
Power input	W	675	1075	-
SEER	W/W	3.28	3.4	-
Energy class		A	A	-
Running pressure (at 7°C)	kPa	4.3	6.2	-
Annual energy price (cooling)	GBP	427.3	627.5	-

Outdoor Unit		SAP-0914E(A)	SAP-1214E(A)	SAP-1814E(A)
Air circulation (R)	m³/h	730	730	-
Warranty (standard)	years	5	5	-
Sound Power Level (R)	dB(A)	52	52	-
Sound Pressure Level (LWR)	dB(A)	36/39/43	36/39/43	-
Dimensions (HxWxD)	mm	296x75x175	296x75x175	296x75x175
Dimensions (HxWxD) - Panel	mm	64x730x730	64x730x730	64x730x730
Net weight - Unit	kg	16.3	16.3	-
Net weight - Panel	kg	2.3	2.3	-
Power supply	V, ph, Hz	230, 1-Ø, 50		

Outdoor Unit		SAP-0914E(A)	SAP-1214E(A)	SAP-1814E(A)
Sound Power Level (R)	dB(A)	52	52	52
Sound Pressure Level (R)	dB(A)	47	46	50
Dimensions (HxWxD)	mm	296x75x175	296x75x175	296x75x175
Net weight	kg	30	37	46
Power supply	V, ph, Hz	230, 1-Ø, 50		

Refrigerant circuit		size 94	size 124	size 184
Tube diameter (Suction/Discharge)	mm	6.35/9.52 / 9.52/12.7	6.35/9.52 / 9.52/12.7	6.35/9.52 / 12.7/15.8
Max piping length	m	12	13	30
Max elevation (H: 0.0 - 1.0)	m	7	7	7
Chargeable piping length	m	7.5	7.5	7.5
Amount of additional refrigerant (g)	g	15	15	25

Rating conditions
Cooling: Indoor air temperature 27°C (DB) 19°C (WB), Outdoor air temperature 35°C (DB) 24°C (WB)
Heating: Indoor air temperature 20°C (DB) 15°C (WB), Outdoor air temperature 7°C (DB) 12°C (WB)

Specifications subject to change without notice.
Note: Size 184 is standard size.
*Data for products at the time of publication.

		PRICE	
4274	Indoor unit price	£400.00	£400.00
1074	Outdoor unit price	£400.00	£400.00
	Set price	£800.00	£800.00



Remote control



Panel



PNR-XG6HA



SAP-XR...E(A)

Super compact design to fit precisely 80x80 standard ceiling modules



SAP-CRL...E(A)

- Quick and easy installation on the ceiling
- Lightweight and compact design fit precisely into standard ceiling modules
- Low noise design
- Auto restart after power failure
- Auto air sealing control provide uniform air flow in the room
- Sleep Multi-functional wireless remote control with built-in temperature sensor
- The built-in drain pump performs to raise the drain pipe up to 30cm
- 24 hour clock with on/off program timer
- Easy-to-clean filter prevents mould or bacteria from occurring
- The modern style panel can be easily removed and washed
- Night self back/Economy mode function ensures gentle and saving energy cooling

SAP-UCRV93EH • SAP-UCRV123EH
SAP-UCRV184EH • SAP-UCRV244EH

Power Range from 2.65 kW to 7.1 kW

Performance		SAP-UCRV93EH				SAP-UCRV123EH				SAP-UCRV184EH				SAP-UCRV244EH			
		Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating
Capacity	kW	12.5	15.5	12.5	15.5	15.5	18.5	15.5	18.5	18.5	21.5	18.5	21.5	21.5	24.5	21.5	24.5
Power input	W	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
SEER / SCOP		12.5	15.5	12.5	15.5	15.5	18.5	15.5	18.5	18.5	21.5	18.5	21.5	18.5	24.5	18.5	24.5
Energy (kWh)		1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Running expenses	€	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Annual energy cost, cooling	€	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000

Access Unit	SAP-UCRV93EH	SAP-UCRV123EH	SAP-UCRV184EH	SAP-UCRV244EH
Air circulation (l/s)	900	1200	1800	2400
Moisture removal (l/day)	1.0/each	1.0/each	1.0/each	1.0/each
External static press (Pa)	75	75	75	75
Sound Power Level (dB)	60-6	60-6	60-6	60-6
Sound Pressure Level (dB)	50-6	50-6	50-6	50-6
Dimensions (mm)	290x290x120	360x360x120	450x450x120	540x540x120
Net weight (kg)	30	30	35	35
Power supply	5.0/1.5	230, 1-0.5A	230, 1-0.5A	230, 1-0.5A

Outdoor Unit	SAP-CR12000H	SAP-CR12000H	SAP-CR12000H	SAP-CR12000H
Sound Power Level (dB)	100 A	100 B	100 C	100 D
Sound Pressure Level (dB)	100 A	100 B	100 C	100 D
Dimensions (mm)	1000 (W) x 1000 (H) x 1000 (D)	1000 (W) x 1000 (H) x 1000 (D)	1000 (W) x 1000 (H) x 1000 (D)	1000 (W) x 1000 (H) x 1000 (D)
Net weight (kg)	100	100	100	100
Power supply (V, Hz, Ph)	220V, 50/60 Hz, 1-Ph	220V, 50/60 Hz, 1-Ph	220V, 50/60 Hz, 1-Ph	220V, 50/60 Hz, 1-Ph

Refrigerant circuit	SAP-UCRV93EH	SAP-UCRV123EH	SAP-UCRV184EH	SAP-UCRV244EH
Cable diameter (mm)	1000	1000	1000	1000
Max. piping length (m)	1000	1000	1000	1000
Max. vertical lift (m)	1000	1000	1000	1000
Charge (kg)	1000	1000	1000	1000
Amount of additional refrigerant (kg)	1000	1000	1000	1000

Operating conditions
Cooling: indoor air temperature 27°C (80°F) DB, outdoor air temperature 35°C (95°F) DB
Heating: indoor air temperature 20°C (68°F) DB, outdoor air temperature 7°C (45°F) DB

Specifications subject to change without notice
Note: SAP-UCRV 123, 184 and 244 are optional models
Specifications subject to change without notice
Data not available at the time of publication



Model	SAP-UCRV93EH	SAP-UCRV123EH	SAP-UCRV184EH	SAP-UCRV244EH
Indoor unit price	200.00	200.00	200.00	200.00
Outdoor unit price	300.00	300.00	300.00	300.00
Set price	500.00	500.00	500.00	500.00

04900A



Residential

Remote control



Receiver



SAP-UCRV-EH

Top class performance of ultra-low noise level has been achieved for places which need expensive air conditioning



SAP-CRV-EH(FP)

- Unified body of 260mm height to match modern architectural standards
- The most suitable for irregular-shaped rooms
- Using the booster cable the static pressure can be increased to satisfy any ductwork need
- DC-Inverter technology for precise temperature control
- Lightweight and compact
- Automatic restart function
- Powerful start function for rapid cooling/heating
- Automatic cooling & heating changeover to maintain the desired temperature
- External electric box for quick wiring connection and easy serviceability
- Cooling & Heating operation down to -15°C (page 184 & 244)
- Sleek Multi-functional wireless remote control with built-in temperature sensor
- 24-hour clock with on/off program timer
- The included air filter is easily accessible from the bottom of the unit
- Night set back/Economy mode function ensures gentle and energy saving cooling and heating

SAP-UCR94EH • SAP-UCR124EH
SAP-UCR184EH • SAP-UCR224EH

Power Range from 2.65 kW to 6.4 kW

CONCEALED SPEED HEAT PUMP									
Performance		size 94		size 124		size 184		size 224	
		Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating
Capacity	kW	2.65	3.2	4.5	4.62	5.15	5.2	6.4	7.2
Power input	W	380	380	1120	1200	-	-	-	-
SEER (JAP)	SEER	5.49	4.1	5.58	4.36	-	-	-	-
Energy class		A	A	A	A	-	-	-	-
Running expenses	€	4.1	3.2	5.3	5.4	-	-	-	-
Annual energy cons. (cooling)	kWh	340	380	565	520	-	-	-	-

Indoor Unit		SAP-UCR94EH(A)		SAP-UCR124EH(A)		SAP-UCR184EH		SAP-UCR224EH	
		475	600	475	600	475	600	475	600
Minimum removal	L/min	2.8	-	1.5	-	-	-	-	-
External static press. (standard)	Pa	49/59	-	49/59	-	-	-	-	-
Sound Power Level (dB)	dB-A	54	54	54	54	-	-	-	-
Sound Pressure Level (SPL)	dB-A	40-43	40-43	40-43	40-43	-	-	-	-
Dimensions (HxWxD)	mm	266x150x271	266x150x271	266x150x271	266x150x271	266x150x271	266x150x271	266x150x271	266x150x271
Net weight	kg	30	30	30	30	30	30	30	30
Power supply	V, A, Hz	230 V, 4.5, 50							

Outdoor Unit		SAP-UCR94EH(A)		SAP-UCR124EH(A)		SAP-UCR184EH		SAP-UCR224EH	
		26-A	38	47	52	47	52	52	52
Sound Power Level (dB)	dB-A	47	49	49	50	50	50	50	50
Dimensions (HxWxD)	mm	148x720x265	148x720x265	148x720x265	148x720x265	148x720x265	148x720x265	148x720x265	148x720x265
Net weight	kg	30	30	30	30	30	30	30	30
Power supply	V, A, Hz	230 V, 4.5, 50							

Refrigerant circuit		size 94		size 124		size 184		size 224	
		6.35/1/6 - 8.5/5/5/5	6.35/1/6 - 8.5/5/5/5	6.35/1/6 - 12.7/1/5	6.35/1/6 - 12.7/1/5	6.35/1/6 - 12.7/1/5	6.35/1/6 - 12.7/1/5	6.35/1/6 - 12.7/1/5	6.35/1/6 - 12.7/1/5
Max piping length	m	15	15	15	15	15	15	15	15
Max elevation diff. (H - L)	m	7	7	7	7	7	7	7	7
Chargeable piping length	m	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Amount of additional refrigerant (g)	g	12	12	12	12	12	12	12	12

Running conditions
Cooling: indoor air temperature (27°C/81°F) 40% Outdoor air temperature (37°C/99°F) 50%
Heating: indoor air temperature (27°C/81°F) 40% Outdoor air temperature (7°C/45°F) 50%

Specifications subject to change without notice.
*Max. floor 10m and 224 are tentative data.
*Data not available at the time of publication.



	PRICE
Indoor unit price	€400.00
Outdoor unit price	€400.00
Set price	€1,000.00



Remote control



Receiver



SAP-UR_EH(A)

Top-class performance of ultra-low noise level has been achieved for places which need expensive air conditioning



SAP-CR_EH(A)

- Unified body of 266mm height to match modern architectural standards
- The most suitable for irregular shaped rooms
- Using the booster cable the static pressure can be increased to satisfy any ductwork need
- Auto restart after power failure
- Multi-functional infrared remote controller with built-in temperature sensor
- Hot start heating system prevents any cold blasts in the room
- External electric box for quick wiring connection and easy serviceability
- Automatic cooling & heating chargeover to maintain the desired temperature
- 24-hour clock with on/off program timer
- The included air filter is easily accessible from the bottom of the unit
- Night set back/Economy mode function ensures gentle and saving energy cooling and heating

SAP-UCLR94E • SAP-UCLR124E
SAP-UCLR184E/D • SAP-UCLR224D

Power Range from 3.07 kW to 6.4 kW

Performance		CONSTANT SPEED LOW NOISE			
		size 94 Cooling	size 124 Cooling	size 184 Cooling	size 224 Cooling
Capacity	kW	3.07	4.25	5.19	6.4
Power input	W	885	1135	-	-
EER	W/W	3.49	3.78	-	-
Energy class	A	A	A	-	-
Running current (1p/3p)	A	6.1	8.3	-	-
Rated energy consumption (cooling)	kWh	440	565	-	-

		SAP-UCLR94E	SAP-UCLR124E	SAP-UCLR184E	SAP-UCLR224E
Indoor Unit					
Indoor unit (in)	mm	400	400	-	-
Minimum removal	L/min	3.8	1.3	-	-
External static pressure (allowable)	Pa	40/45	40/45	-	-
Sound Power Level (in)	dB-A	54	54	-	-
Sound Pressure Level (Quiet/Normal)	dB-A	40/43.5	40/43.5	-	-
Dimensions (HxWxD)	mm	266x210x71	266x210x71	266x210x71	266x210x71
Net weight	kg	30	30	30	30
Power supply	V, ph, Hz	230, 1~N, 50			

		SAP-CLR94E/A	SAP-CLR124E/A	SAP-CLR184E/A/D	SAP-CLR224E/A
Outdoor Unit					
Sound Power Level (in)	dB-A	59	61	67	69
Sound Pressure Level (in)	dB-A	42	46	50	52
Dimensions (HxWxD)	mm	346x220x95	346x220x95	676x220x95	676x220x95
Net weight	kg	25	27	45	52
Power supply	V, ph, Hz	230, 1~N, 50			
		230, 1~N, 50			
		230, 1~N, 50			
		230, 1~N, 50			

		size 94	size 124	size 184	size 224
Refrigerant circuit					
Tube diameter (Refrigerant)	mm	6.35/12.7 • 9.52/12.7	6.35/12.7 • 9.52/12.7	6.35/12.7 • 12.7/12.7	6.35/12.7 • 12.7/12.7
Max piping length	m	15	15	30	30
Max elevation difference (S-C • H-C)	m	7	7	7	7
Charge piping length	m	7.5	7.5	15	15
Amount of additional refrigerant	g/g	15	15	25	25

Rating conditions
Cooling indoor air temperature (T_{in}): 26/19°C WB (Outdoor air temperature (T_{out}): 35/24°C WB)
Heating indoor air temperature (T_{in}): 20/16°C WB (Outdoor air temperature (T_{out}): 7/12°C WB)

Specifications subject to change without notice.
Note: Size 184 and 224 are tentative data.
Data are estimates at the time of publication.



		PRICE	
Indoor unit price	Each	505.00	405.00
Outdoor unit price	Each	505.00	405.00
Set price	Set	1,010.00	1,210.00



Remote control



Receiver



SAP-UR.E(A)

Top class performance of ultra-low noise level has been achieved for places which need expensive air conditioning



SAP-CLR.E(A)

- Low ambient function ensures continuous cooling operation even in cold region
- Unified body of 266mm height to match modern architectural standards
- The most suitable for irregular shaped rooms
- Using the booster cable the static pressure can be increased to satisfy any ductwork need
- Auto restart after power failure
- Multi-functional infrared remote controller with built-in temperature sensor
- External electric box for quick wiring connection and easy service
- 24-hour clock with on/off program timer
- The included air filter is easily accessible from the bottom of the unit
- Night set back/Economy mode function ensures gentle and saving energy cooling

SAP-UCR94E • SAP-UCR124E
SAP-UCR184E/D • SAP-UCR224E

Power Range from 3.07 kW to 6.4 kW

CONSTANT SPEED DUCTING ONLY					
Performance		size 94 Cooling	size 124 Cooling	size 184 Cooling	size 224 Cooling
Capacity	kW	3.07	4.05	5.10	6.4
Power input	W	360	1150	-	-
GDR	W/W	3.49	3.58	-	-
Energy class	A	A	A	-	-
Running current (A) / 75%	A	4.1	5.3	-	-
Actual energy consumption (cooling) (W)	W	360	980	-	-
Indoor Unit					
Air circulation (m³/h)	m³/h	300	600	-	-
Maximum distance (m)	5.5/7.5	5.5	7.5	-	-
External static pressure (kPa)	Pa	63/69	63/69	-	-
Sound Power Level (dB-A)	dB-A	54	59	-	-
Sound Pressure Level (A, B, C)	dB-A	40/43/45	40/43/45	-	-
Dimensions (mm)	mm	266x226x71	266x226x71	266x226x71	266x226x71
Net weight	kg	30	30	30	30
Power supply	V, ph, Hz	(230V, 1-φ, 50)			
Outdoor Unit					
Sound Power Level (dB-A)	dB-A	52	57	67	69
Sound Pressure Level (dB-A)	dB-A	41	49	50	57
Dimensions (mm)	mm	346x226x55	366x226x55	676x226x55	676x226x55
Net weight	kg	30	37	65	73
Power supply	V, ph, Hz	(230V, 1-φ, 50)			
Refrigerant circuit					
Tube diameter (mm)	mm	6.35/12.7 / 8.5/13.5	6.35/12.7 / 8.5/13.5	6.35/12.7 / 13.7/17.5	6.35/12.7 / 15.875/19
Max piping length (m)	m	15	15	30	30
Max elevation difference (B, C) - (+/-)	m	7	7	7	7
Chargeable piping length (m)	m	7.5	7.5	7.5	10
Amount of additional refrigerant (g)	g	15	15	25	25

Operating conditions
Cooling: indoor air temperature 27°C (26/27/28), outdoor air temperature 35°C (35/35/35)
Heating: indoor air temperature 20°C (20/20/20), outdoor air temperature 7°C (5/5/5)

Specifications subject to change without notice
Note: Size 184 and 224 are standard size
Note: Not available at the time of publication



	PRICE
Indoor unit price	€ 100.00
Outdoor unit price	€ 100.00
Set price	€ 200.00



Remote control

Receiver



SAP-UR.E(A)

Top class performance of ultra-low noise level has been achieved for places which need expensive air conditioning



SAP-CR.E(A)

- Unified body of 266mm height to match modern architectural standards
- The most suitable for irregular shaped rooms
- Using the transfer cable the static pressure can be increased to satisfy any ductwork need
- Auto restart after power failure
- Multi-functional infrared remote controller with built-in temperature sensor
- External electric box for quick wiring connection and easy service
- 24-hour clock with on/off program timer
- The included air filter is easily accessible from the bottom of the unit
- Night set back/Economy mode function ensures gentle and saving energy cooling

SAP-CMRV1424EH(C) • SAP-CMRV1924EH(C)
SAP-CMRV1934EH(C) • SAP-CMRV2444EH(C)
SAP-CMRV3144EH(C)

Power Range from 4.0 kW to 8.0 kW

Feature and Performance	IMPROVED 640 POWER											
	SAP-60WV140H20		SAP-60WV140H20		SAP-60WV140H20		SAP-60WV140H20		SAP-60WV140H20		SAP-60WV140H20	
	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating
Capacity	6.6	1.2 to 6.6	6.6	1.2 to 6.6	2.1 to 6.6	3.4 to 6.6	3.6 to 6.6	3.6 to 6.6	6.6 to 6.6	1.2 to 6.6	6.6 to 6.6	1.2 to 6.6
Power input	6	1025/1	1025/1	1025/1	1025/1	1025/1	1025/1	1025/1	1025/1	1025/1	1025/1	1025/1
SEER / COP	6/16	6.32	4.86	5.58	4.21	5.20	4.67	5.46	4.36	4.64	4.64	4.64
Energy class		A	A	A	A	A	A	A	A	A	A	A
Running ampere	5	6.1	6.1	7.32	7.7	7.32	7.7	6.87	6.87	7.58	8.96	
Annual energy cons. (cooling)	548	802.5		847.5		847.5		1000		802.5		
Convertible units	No	2		2		2				2		
Sound Pressure Level (S)	46-4	47	46	50	52	50	52	50	52	50	52	
Sound Power Level (P)	46-4											
Tube Material: Bronze/Nickel	yes	3x 6.45/4.0		2x 6.45/4.0		3x 6.45/4.0		4x 6.4 (2.0)		4x 6.45/4.0		
Max. piping length - Total	30	3x 15.24		3x 15.24		3x 15.24		2x 15.24/12.19/3		3x 15.24/12.19/3		
Max. piping length - per Unit	30	40		40		40		30		40		
Max. vertical lift - per Unit	30	40		40		40		20		30		
Max. vertical lift - 0.1 - 1.2	15	15		20		20		10		10		
Charged gas piping length - Total	30	40		40		40		40		40		
Dimensions (inches)	yes	36x16x363		74x36x320		74x36x320		74x36x320		88x36x320		
Net weight	kg	42		65		65		65		62		
Power supply	1, 2, 3, 5					230, 1 + 6, 50						

None of these three conditions were met by comparison to the small control cell.

Test, assembled and Performance	SAP-8000-100		SAP-8000-150		SAP-8000-200		SAP-8000-250		SAP-8000-300		
	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	
Capacity	kW	2.2	3.1	2.05	3.8	3.1	4.2	5.15	6.0	7.1	8.3
Air circulation (4)	cm/s	-	-	-	-	-	-	-	-	-	-
Minimum pressure	l/min	-	-	-	-	-	-	-	-	-	-
Static pressure level (2)	dB-A	22.1/22	21.1/21	22.1/26	22.1/24	21.1/26	20.1/24	20.1/24	20.1/24	20.1/24	20.1/24
Sound pressure level (2)	dB-A	-	-	-	-	-	-	51	52	56	55
Tube diameter	mm	6.35/16	9.52/24	6.35/16	9.52/24	6.35/16	9.52/24	6.35/16/17	9.52/24	6.35/16/17	9.52/24
Power consumption	Watt	200/240/250	200/240/250	200/240/250	200/240/250	200/240/250	200/240/250	200/240/250	200/240/250	200/240/250	200/240/250
Net weight	kg	10	10	10	10	10	10	12	12	12	12
Net weight	kg	2,20	3,10	2,05	3,80	3,10	4,20	5,15	6,00	7,10	8,30

Setting conditions

Coating: baked at temperature 170°C (356°F) 60 min (surface at temperature 180°C (356°F) 60 min)
curing: baked at temperature 180°C (356°F) 10 min (surface at temperature 170°C (356°F) 60 min)

^a Data not available at the time of publication.



		PRICE	
retail unit price	£/unit	520.00	400.00
supplier unit price	£/unit	430.00	340.00
net price	£/unit	1,050.00	740.00



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Remote control



SAP-KIMRVLEH

A proven design that is highly efficient and energy-saving

- 3 system capacities from 4.0 up to 8.0 kW
- DC-Inverter technology for precise temperature control and low start current
- Twin rotary compressor: the dual rotors revolve smoothly in a well-balanced fashion for stable and efficient performance. This also contributes to increased comfort and rapid cooling & heating, as well as the unit extra-quiet and economical operation
- A++-class efficiency on whole range, in cooling and heating operation
- Extended operating range down to -15°C in cooling (BHC models) and heating mode
- The reduced volume of the outdoor unit (by 8% versus further) the problem of limited installation space and does not clutter the outdoor in your home
- No-stop heating operation thanks to the exclusive hot gas bypass system by Sanyo
- Washable and reusable air clean aqua filter
- Ion generator refreshes your room with negative ions
- Night set back/Economy mode function ensures gentle and saving energy cooling and heating
- 24-hour clock with on/off program timer



SAP-CMRV ETHICS

COMBINATIONS TABLE

Model No. Reference			SAP (kW/VA/VA)													
			Cooling					Total capacity		Heating					Total capacity	
			Indoor capacity (kW)							Indoor capacity (kW)						
			A	B	C	D	A	B	A	B	C	D	A	B		
Continuation of 1 phase	1 phase	10	2.2	-	-	-	2.2	3.3	-	-	-	-	-	-	-	
		15	3.3	-	-	-	3.3	5.0	-	-	-	-	-	-	-	
		20	4.4	-	-	-	4.4	6.6	-	-	-	-	-	-	-	
		25	5.5	-	-	-	5.5	8.3	-	-	-	-	-	-	-	
		30	6.6	-	-	-	6.6	10.0	-	-	-	-	-	-	-	
	2 phase	15	3.3	3.3	-	-	5.0	7.5	3.3	3.3	-	-	-	-	-	
		20	4.4	4.4	-	-	6.6	10.0	4.4	4.4	-	-	-	-	-	
		25	5.5	5.5	-	-	8.3	12.5	5.5	5.5	-	-	-	-	-	
		30	6.6	6.6	-	-	10.0	15.0	6.6	6.6	-	-	-	-	-	
		35	7.7	7.7	-	-	11.7	17.5	7.7	7.7	-	-	-	-	-	

Model No. Reference		SAP (kW/VA/VA)															
		Cooling					Total capacity				Heating						
		Indoor capacity (kW)					Total capacity (kW)				Indoor capacity (kW)						
	A	B	C	D	E	Power capacity (kW)	A	B	C	D	E	Power capacity (kW)	A	B	C	D	E
1 Phase	40	0.1	-	-	-	-	0.1	0.6	-	-	-	-	-	-	-	-	-
	45	0.49	-	-	-	-	0.49	1.4	-	-	-	-	-	-	-	-	-
	50	0.9	-	-	-	-	0.9	4.1	-	-	-	-	-	-	-	-	-
	55	0.93	-	-	-	-	0.93	4.6	-	-	-	-	-	-	-	-	-
	60	1.3	-	-	-	-	1.3	5.3	-	-	-	-	-	-	-	-	-
	65	1.3	-	-	-	-	1.3	5.8	-	-	-	-	-	-	-	-	-
	70	1.7	-	-	-	-	1.7	6.5	-	-	-	-	-	-	-	-	-
	75	1.7	-	-	-	-	1.7	7.0	-	-	-	-	-	-	-	-	-
	80	2.2	-	-	-	-	2.2	7.7	-	-	-	-	-	-	-	-	-
	85	2.2	-	-	-	-	2.2	8.2	-	-	-	-	-	-	-	-	-
2 Phase	40	0.1	0.1	-	-	-	0.1	0.6	0.6	-	-	-	-	-	-	-	-
	45	0.3	0.49	-	-	-	0.88	1.9	1.9	-	-	-	-	-	-	-	-
	50	0.9	0.9	-	-	-	1.7	3.7	3.7	-	-	-	-	-	-	-	-
	55	0.93	1.0	-	-	-	1.9	4.0	4.0	-	-	-	-	-	-	-	-
	60	1.3	1.3	-	-	-	2.5	5.3	5.3	-	-	-	-	-	-	-	-
	65	1.3	1.3	-	-	-	2.5	5.8	5.8	-	-	-	-	-	-	-	-
	70	1.7	1.7	-	-	-	3.4	6.5	6.5	-	-	-	-	-	-	-	-
	75	1.7	1.7	-	-	-	3.4	7.0	7.0	-	-	-	-	-	-	-	-
	80	2.2	2.2	-	-	-	4.4	7.7	7.7	-	-	-	-	-	-	-	-
	85	2.2	2.2	-	-	-	4.4	8.2	8.2	-	-	-	-	-	-	-	-
3 Phase	40	0.1	0.1	0.1	-	-	0.1	0.6	0.6	0.6	-	-	-	-	-	-	-
	45	0.49	0.49	0.49	-	-	0.4	1.9	1.9	1.9	-	-	-	-	-	-	-
	50	0.9	0.9	0.9	-	-	0.9	3.7	3.7	3.7	-	-	-	-	-	-	-
	55	0.93	0.93	0.93	-	-	0.9	4.0	4.0	4.0	-	-	-	-	-	-	-
	60	1.3	1.3	1.3	-	-	1.3	5.3	5.3	5.3	-	-	-	-	-	-	-
	65	1.3	1.3	1.3	-	-	1.3	5.8	5.8	5.8	-	-	-	-	-	-	-
	70	1.7	1.7	1.7	-	-	1.7	6.5	6.5	6.5	-	-	-	-	-	-	-
	75	1.7	1.7	1.7	-	-	1.7	7.0	7.0	7.0	-	-	-	-	-	-	-
	80	2.2	2.2	2.2	-	-	2.2	7.7	7.7	7.7	-	-	-	-	-	-	-
	85	2.2	2.2	2.2	-	-	2.2	8.2	8.2	8.2	-	-	-	-	-	-	-
Continuation of 1 Phase		40	0.1	-	-	-	0.1	0.6	-	-	-	-	-	-	-	-	-
		45	0.49	-	-	-	-	0.49	1.4	-	-	-	-	-	-	-	-

Model No. Reference		SAP (kW/VA/VA)											
		Cooling					Heating						
		Indoor capacity (kW)					Indoor capacity (kW)						
1 phase	2 phase	3 phase	Indoor capacity (kW)					Indoor capacity (kW)					
			A	B	C	D	E	A	B	C	D	E	
1 phase	90	22.0	-	-	-	-	22.0	33.0	-	-	-	-	-
	100	24.2	-	-	-	-	24.2	36.3	-	-	-	-	-
	110	26.4	-	-	-	-	26.4	39.6	-	-	-	-	-
	120	28.6	-	-	-	-	28.6	42.9	-	-	-	-	-
	130	30.8	-	-	-	-	30.8	46.2	-	-	-	-	-
	140	33.0	-	-	-	-	33.0	49.5	-	-	-	-	-
	150	35.2	-	-	-	-	35.2	52.8	-	-	-	-	-
	160	37.4	-	-	-	-	37.4	56.1	-	-	-	-	-
	170	39.6	-	-	-	-	39.6	59.4	-	-	-	-	-
	180	41.8	-	-	-	-	41.8	62.7	-	-	-	-	-
2 phase	90	22.0	22.0	-	-	-	33.0	49.5	22.0	22.0	-	-	-
	100	24.2	24.2	-	-	-	36.3	54.0	24.2	24.2	-	-	-
	110	26.4	26.4	-	-	-	39.6	58.5	26.4	26.4	-	-	-
	120	28.6	28.6	-	-	-	42.9	63.0	28.6	28.6	-	-	-
	130	30.8	30.8	-	-	-	46.2	67.5	30.8	30.8	-	-	-
	140	33.0	33.0	-	-	-	49.5	72.0	33.0	33.0	-	-	-
	150	35.2	35.2	-	-	-	52.8	76.5	35.2	35.2	-	-	-
	160	37.4	37.4	-	-	-	56.1	81.0	37.4	37.4	-	-	-
	170	39.6	39.6	-	-	-	59.4	85.5	39.6	39.6	-	-	-
	180	41.8	41.8	-	-	-	62.7	90.0	41.8	41.8	-	-	-
3 phase	90	22.0	22.0	22.0	-	-	33.0	49.5	33.0	33.0	-	-	-
	100	24.2	24.2	24.2	-	-	36.3	54.0	36.3	36.3	-	-	-
	110	26.4	26.4	26.4	-	-	39.6	58.5	39.6	39.6	-	-	-
	120	28.6	28.6	28.6	-	-	42.9	63.0	42.9	42.9	-	-	-
	130	30.8	30.8	30.8	-	-	46.2	67.5	46.2	46.2	-	-	-
	140	33.0	33.0	33.0	-	-	49.5	72.0	49.5	49.5	-	-	-
	150	35.2	35.2	35.2	-	-	52.8	76.5	52.8	52.8	-	-	-
	160	37.4	37.4	37.4	-	-	56.1	81.0	56.1	56.1	-	-	-
	170	39.6	39.6	39.6	-	-	59.4	85.5	59.4	59.4	-	-	-
	180	41.8	41.8	41.8	-	-	62.7	90.0	62.7	62.7	-	-	-
Continuation of 1 phase													

This table contains all combinations of inverter units in the residential sector. It is subject to change without notice. SAP (kW/VA/VA) is the sum of the kW, VA and VA of the inverter units. The kW, VA and VA of the inverter units are the same as the kW, VA and VA of the inverter units.

Model No.		SAP (kW/VA/VA)											
Performance		Cooling					Heating					Total capacity	
		Motor capacity (kW)					Motor capacity (kW)					Total capacity (kW)	
		A	B	C	D	E	A	B	C	D	E	A	B
1 Phase	20	2.2	-	-	-	-	2.2	2.2	-	-	-	4.4	4.4
	25	2.8	-	-	-	-	2.8	2.8	-	-	-	5.6	5.6
	30	3.3	-	-	-	-	3.3	3.3	-	-	-	6.6	6.6
	35	3.8	-	-	-	-	3.8	3.8	-	-	-	7.6	7.6
	40	4.4	-	-	-	-	4.4	4.4	-	-	-	8.8	8.8
2 Phase	20/25	2.2	2.2	-	-	-	4.4	2.2	2.2	-	-	6.6	6.6
	25/30	2.8	2.8	-	-	-	5.6	2.8	2.8	-	-	8.4	8.4
	30/35	3.3	3.3	-	-	-	6.6	3.3	3.3	-	-	9.9	9.9
	35/40	3.8	3.8	-	-	-	7.6	3.8	3.8	-	-	11.4	11.4
	40/45	4.4	4.4	-	-	-	8.8	4.4	4.4	-	-	13.2	13.2
Continuation of 2 Phase		45/50	5.0	5.0	-	-	10.0	5.0	5.0	-	-	15.0	15.0
		50/55	5.6	5.6	-	-	11.2	5.6	5.6	-	-	16.8	16.8
		55/60	6.2	6.2	-	-	12.4	6.2	6.2	-	-	18.6	18.6
		60/65	6.8	6.8	-	-	13.6	6.8	6.8	-	-	20.4	20.4
		65/70	7.4	7.4	-	-	14.8	7.4	7.4	-	-	22.2	22.2
		70/75	8.0	8.0	-	-	16.0	8.0	8.0	-	-	24.0	24.0

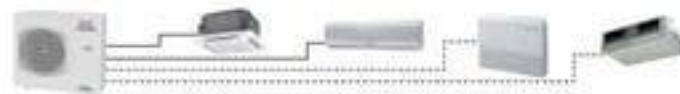
Model No. Reference		SAP (kW/VA/VA)															
		Cooling					Total capacity				Heating						
		Indoor capacity (kW)					Total capacity (kW)				Indoor capacity (kW)						
1 phase	2 phase	A	B	C	D	E	(kW)	A	B	C	D	E	(kW)				
		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
Continuation of 1 phase	1 phase	45	9.9	-	-	-	-	9.9	14.8	-	-	-	-	-	-	-	-
	50	11.0	-	-	-	-	-	11.0	16.5	-	-	-	-	-	-	-	
	55	12.1	-	-	-	-	-	12.1	18.2	-	-	-	-	-	-	-	
	60	13.2	-	-	-	-	-	13.2	19.8	-	-	-	-	-	-	-	
	65	14.3	-	-	-	-	-	14.3	21.5	-	-	-	-	-	-	-	
	70	15.4	-	-	-	-	-	15.4	23.1	-	-	-	-	-	-	-	
	75	16.5	-	-	-	-	-	16.5	24.7	-	-	-	-	-	-	-	
	80	17.6	-	-	-	-	-	17.6	26.3	-	-	-	-	-	-	-	
	85	18.7	-	-	-	-	-	18.7	27.9	-	-	-	-	-	-	-	
	90	19.8	-	-	-	-	-	19.8	29.5	-	-	-	-	-	-	-	
	95	20.9	-	-	-	-	-	20.9	31.1	-	-	-	-	-	-	-	
	100	22.0	-	-	-	-	-	22.0	32.7	-	-	-	-	-	-	-	
	105	23.1	-	-	-	-	-	23.1	34.3	-	-	-	-	-	-	-	
Continuation of 2 phase	2 phase	45	9.9	9.9	-	-	-	14.8	22.2	9.9	9.9	-	-	-	-	-	
	50	11.0	11.0	-	-	-	-	16.5	24.7	11.0	11.0	-	-	-	-	-	
	55	12.1	12.1	-	-	-	-	18.2	27.3	12.1	12.1	-	-	-	-	-	
	60	13.2	13.2	-	-	-	-	19.8	29.9	13.2	13.2	-	-	-	-	-	
	65	14.3	14.3	-	-	-	-	21.5	32.5	14.3	14.3	-	-	-	-	-	
	70	15.4	15.4	-	-	-	-	23.1	35.0	15.4	15.4	-	-	-	-	-	
	75	16.5	16.5	-	-	-	-	24.7	37.5	16.5	16.5	-	-	-	-	-	
	80	17.6	17.6	-	-	-	-	26.3	40.0	17.6	17.6	-	-	-	-	-	
	85	18.7	18.7	-	-	-	-	27.9	42.5	18.7	18.7	-	-	-	-	-	
	90	19.8	19.8	-	-	-	-	29.5	45.0	19.8	19.8	-	-	-	-	-	
	95	20.9	20.9	-	-	-	-	31.1	47.5	20.9	20.9	-	-	-	-	-	
	100	22.0	22.0	-	-	-	-	32.7	50.0	22.0	22.0	-	-	-	-	-	
	105	23.1	23.1	-	-	-	-	34.3	52.5	23.1	23.1	-	-	-	-	-	

SAP-CMRV1923GJH • SAP-CMRV2433GJH
SAP-CMRV3143GJH

Power Range from 5.6 kW to 9.0 kW

Outdoor unit Performance	INVERTER HEAT PUMP					
	SAP-CMRV1923GJH		SAP-CMRV2433GJH		SAP-CMRV3143GJH	
Capacity	4.8	5.6	6.3	7.1	8.0	9.0
Power input	30	35	40	45	50	55
COP	1.6	1.6	1.6	1.6	1.6	1.6
Energy input	4.8	5.6	6.3	7.1	8.0	9.0
Energy output (cooling)	7.7	9.0	10.1	11.4	12.8	14.4
Energy output (heating)	7.7	9.0	10.1	11.4	12.8	14.4
Rated Power input (kW)	30	35	40	45	50	55
Rated Power output (kW)	48	56	63	71	80	90
Top clearance (mm)	400	400	400	400	400	400
Max. piping length (m)	30	30	30	30	30	30
Max. piping length (m) (R410A)	30	30	30	30	30	30
Max. refrigerant (kg) (R410A)	3.0	3.0	3.0	3.0	3.0	3.0
Refrigerant piping length (m)	30	30	30	30	30	30
Refrigerant piping length (m) (R410A)	30	30	30	30	30	30
Net weight	12	12	12	12	12	12
Net weight	12	12	12	12	12	12

Note: All listed data is based on indoor unit type (S) for comparison to the heat exchanger unit.
Specifications subject to change without notice.



Rating conditions
Cooling: indoor air temperature (27°C/80°F) 40% outdoor air temperature (35°C/95°F) 50%
Heating: indoor air temperature (20°C/68°F) outdoor air temperature (7°C/45°F) 50%



	Indoor unit price	Outdoor unit price	Set price
Basic	300.00	800.00	1,100.00
Set price	300.00	800.00	1,100.00



R410A



SAP-CMRV1923GJH(A)



SAP-CMRV2433GJH(A)
SAP-CMRV3143GJH(A)

A proven design that is highly efficient
and energy-saving

- The Sanyo Flexi Multi range of heat pump and straight cooling multi split system are the ideal, flexible solution for providing quick and efficient air conditioning to 2, 3 or 4 areas with a single outdoor unit
- Wide choice of indoor unit style: wall mounted, floor/ceiling, cassette, ducted
- DC inverter technology for precise temperature control and low start current
- High efficiency on whole range, in

- cooling and heating mode
- No-stop heating operation thanks to the exclusive hot gas bypass system by Sanyo
- Two rotary compressors: the dual rotors revolve smoothly in a well-balanced fashion for stable and efficient performance. This also contributes to increased comfort and rapid cooling & heating, as well as the unit's quiet and economical operation

- Chargeless outdoor unit, therefore no additional refrigerant needed on site
- Night set back function
- 24-hour clock with on/off program timer
- Night set back/Economy mode function ensures gentle and saving energy cooling and heating

SAP-CMRV 3-SERIE

INDOOR UNIT

Wall mounted unit		SAP-CMRV12S(L)N3		SAP-CMRV12S(L)N3		SAP-CMRV12S(L)N3		SAP-CMRV12S(L)N3	
Performance		Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating
Capacity	HP	6.12/5.1-2	5.94/5.1-4	5.57/5.1-5	5.94/5.1-3	5.15/5.1-8	5.27/5.1-9	5.07/5.1-1	5.05/5.1-8
Air circulation (l/s)	m³/h	420	420	360	360	360	360	360	360
Moisture removal	L/hour	1.8	-	2.2	-	2.8	-	3.4	-
Sound Pressure Level (LWA)	dB-A	32/34/41	34/36/44	32/34/41	34/36/44	30/32/39	32/34/41	30/32/39	32/34/41
Sound Power Level (Lp)	dB-A	52	54	52	54	50	52	50	52
Tube diameter (Nominal/Max)	mm	6.35/16	9.52/16	6.35/16	9.52/16	6.35/16	9.52/16	6.35/16	12.7/16
Dimensions (HxWxD)	mm	273/350/173	-	265/350/173	-	265/350/173	-	265/350/173	-
Net weight	kg	-	5.5	-	5.5	-	5.5	-	5.5
Power supply		230, 1~N, 50							

Ceiling mounted unit		SAP-CMRV12S(L)N3		SAP-CMRV12S(L)N3		SAP-CMRV12S(L)N3		SAP-CMRV12S(L)N3	
Performance		Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating
Capacity	HP	6.12/5.1-2	5.94/5.1-4	5.57/5.1-5	5.94/5.1-3	5.15/5.1-8	5.27/5.1-9	5.07/5.1-1	5.05/5.1-8
Air circulation (l/s)	m³/h	420	420	360	360	360	360	360	360
Moisture removal	L/hour	1.8	-	2.2	-	2.8	-	3.4	-
External static pressure (LPA)	Pa	16/21/31	-	16/21/31	-	16/21/31	-	16/21/31	-
Sound Pressure Level (LWA)	dB-A	32/34/41	34/36/44	32/34/41	34/36/44	30/32/39	32/34/41	30/32/39	32/34/41
Sound Power Level (Lp)	dB-A	52	54	52	54	50	52	50	52
Tube diameter (Nominal/Max)	mm	6.35/16	9.52/16	6.35/16	9.52/16	6.35/16	9.52/16	6.35/16	12.7/16
Dimensions (HxWxD)	mm	265/350/173	-	265/350/173	-	265/350/173	-	265/350/173	-
Net weight	kg	-	19	-	19	-	19	-	19
Power supply		230, 1~N, 50							

Semi concealed if any unit		SAP-CMRV12S(L)N3		SAP-CMRV12S(L)N3		SAP-CMRV12S(L)N3		SAP-CMRV12S(L)N3	
Performance		Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating
Capacity	HP	5.12/5.1-2	5.94/5.1-4	5.12/5.1-2	5.94/5.1-4	5.15/5.1-8	5.27/5.1-9	5.07/5.1-1	5.05/5.1-8
Air circulation (l/s)	m³/h	360	360	360	360	360	360	360	360
Moisture removal	L/hour	1.8	-	2.2	-	2.8	-	3.4	-
Sound Pressure Level (LWA)	dB-A	32/34/41	34/36/44	32/34/41	34/36/44	30/32/39	32/34/41	30/32/39	32/34/41
Sound Power Level (Lp)	dB-A	52	54	52	54	50	52	50	52
Tube diameter (Nominal/Max)	mm	6.35/16	9.52/16	6.35/16	9.52/16	6.35/16	9.52/16	6.35/16	12.7/16
Dimensions (HxWxD)	mm	265/350/173	-	265/350/173	-	265/350/173	-	265/350/173	-
Dimensions (HxWxD) - Panel	mm	640/350/730	-	640/350/730	-	640/350/730	-	640/350/730	-
Net weight - Unit	kg	-	16.5	-	16.5	-	16.5	-	16.5
Net weight - Panel	kg	-	2.5	-	2.5	-	2.5	-	2.5
Power supply		230, 1~N, 50							

Floor and Floor/Ceiling unit		SAP-CMRV12S(L)N3		SAP-CMRV12S(L)N3		SAP-CMRV12S(L)N3		SAP-CMRV12S(L)N3	
Performance		Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating
Capacity	HP	6.12/5.1-2	5.94/5.1-4	5.57/5.1-5	5.94/5.1-3	5.15/5.1-8	5.27/5.1-9	5.07/5.1-1	5.05/5.1-8
Air circulation (l/s)	m³/h	420	420	360	360	360	360	360	360
Moisture removal	L/hour	1.8	-	2.2	-	2.8	-	3.4	-
Sound Pressure Level (LWA)	dB-A	32/34/41	34/36/44	32/34/41	34/36/44	30/32/39	32/34/41	30/32/39	32/34/41
Sound Power Level (Lp)	dB-A	52	54	52	54	50	52	50	52
Tube diameter (Nominal/Max)	mm	6.35/16	9.52/16	6.35/16	9.52/16	6.35/16	9.52/16	6.35/16	12.7/16
Dimensions (HxWxD)	mm	350/350/250	-	350/350/250	-	350/350/250	-	350/350/250	-
Net weight	kg	-	16	-	16.5	-	16.5	-	16.5
Power supply		230, 1~N, 50							

Ceiling mounted unit		SAP-CMRV12S(L)N3		SAP-CMRV12S(L)N3		SAP-CMRV12S(L)N3		SAP-CMRV12S(L)N3	
Performance		Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating
Capacity	HP	6.12/5.1-2	5.94/5.1-4	5.57/5.1-5	5.94/5.1-3	5.15/5.1-8	5.27/5.1-9	5.07/5.1-1	5.05/5.1-8
Air circulation (l/s)	m³/h	420	420	360	360	360	360	360	360
Moisture removal	L/hour	1.8	-	2.2	-	2.8	-	3.4	-
External static pressure (LPA)	Pa	16/21/31	-	16/21/31	-	16/21/31	-	16/21/31	-
Sound Pressure Level (LWA)	dB-A	32/34/41	34/36/44	32/34/41	34/36/44	30/32/39	32/34/41	30/32/39	32/34/41
Sound Power Level (Lp)	dB-A	52	54	52	54	50	52	50	52
Tube diameter (Nominal/Max)	mm	6.35/16	9.52/16	6.35/16	9.52/16	6.35/16	9.52/16	6.35/16	12.7/16
Dimensions (HxWxD)	mm	265/350/173	-	265/350/173	-	265/350/173	-	265/350/173	-
Net weight	kg	-	19	-	19	-	19	-	19
Power supply		230, 1~N, 50							

COMBINATIONS TABLE

Model No.		SAP-CMRV12S(L)N3									
Performance		Cooling					Heating				
		Indoor capacity (kW)					Indoor capacity (kW)				
		A	B	C	D	E	A	B	C	D	E
Combinations of 1 unit	1 Room	35	45	-	-	-	1.20	1.20	-	-	-
	2 Room	35	45	-	-	-	1.20	1.20	-	-	-
	3 Room	35	45	-	-	-	1.20	1.20	-	-	-
	4 Room	35	45	-	-	-	1.20	1.20	-	-	-
	5 Room	35	45	-	-	-	1.20	1.20	-	-	-
	6 Room	35	45	-	-	-	1.20	1.20	-	-	-
	7 Room	35	45	-	-	-	1.20	1.20	-	-	-
	8 Room	35	45	-	-	-	1.20	1.20	-	-	-
	9 Room	35	45	-	-	-	1.20	1.20	-	-	-
	10 Room	35	45	-	-	-	1.20	1.20	-	-	-

Model No.		SAP-CMRV12S(L)N3									
Performance		Cooling					Heating				
		Indoor capacity (kW)					Indoor capacity (kW)				
		A	B	C	D	E	A	B	C	D	E
Combinations of 1 unit	1 Room	35	45	-	-	-	1.20	1.20	-	-	-
	2 Room	35	45	-	-	-	1.20	1.20	-	-	-
	3 Room	35	45	-	-	-	1.20	1.20	-	-	-
	4 Room	35	45	-	-	-	1.20	1.20	-	-	-
	5 Room	35	45	-	-	-	1.20	1.20	-	-	-
	6 Room	35	45	-	-	-	1.20	1.20	-	-	-
	7 Room	35	45	-	-	-	1.20	1.20	-	-	-
	8 Room	35	45	-	-	-	1.20	1.20	-	-	-
	9 Room	35	45	-	-	-	1.20	1.20	-	-	-
	10 Room	35	45	-	-	-	1.20	1.20	-	-	-

Model No.		SAP-CMRV12S(L)N3									
Performance		Cooling					Heating				
		Indoor capacity (kW)					Indoor capacity (kW)				
		A	B	C	D	E	A	B	C	D	E
Combinations of 1 unit	1 Room	35	45	-	-	-	1.20	1.20	-	-	-
	2 Room	35	45	-	-	-	1.20	1.20	-	-	-
	3 Room	35	45	-	-	-	1.20	1.20	-	-	-
	4 Room	35	45	-	-	-	1.20	1.20	-	-	-
	5 Room	35	45	-	-	-	1.20	1.20	-	-	-
	6 Room	35	45	-	-	-	1.20	1.20	-	-	-
	7 Room	35	45	-	-	-	1.20	1.20	-	-	-
	8 Room	35	45	-	-	-	1.20	1.20	-	-	-
	9 Room	35	45	-	-	-	1.20	1.20	-	-	-
	10 Room	35	45	-	-	-	1.20	1.20	-	-	-

SA-P51E • SA-P71E • SAP-PFR94E • SAP-PFR124E

Power Range from 1.8 kW to 3.68 kW

Performance		MINI-SPLIT TYPE	
		SA-P51E Cooling	SA-P71E Cooling
Capacity	kW	1.8	2.1
Power Input	W	720	780
EER	W/W	2.5	2.9
Energy class	-	C	A
Running ampere	A	3.3	3.3
Actual energy rate (cooling)	kWh	880	880
Fan speed	No.	2	2
Air circulation (m³/h)	m³/h	250	310
Tubing length	m	1.5	1.5
Maximum remote con. (by cable)	Length	8.45 / 13.0	1.0 / 13.0
Sound Pressure Level (SPL)	dB(A)	50/52	51/53
Dimensions (indoor)	mm	800x450x250	870x450x250
Net weight	kg	32	30
Power supply		1, 2, 3, 5	230, 1+4, 5

Performance		SPLIT TYPE	
		SAP-PFR94E Cooling	SAP-PFR124E Cooling
Capacity	kW	2.30	3.68
Power Input	W	820	1040
EER	W/W	2.22	3.21
Energy class	-	A	A
Running ampere	A	4.5	7.2
Actual energy rate (cooling)	kWh	462.5	620
Fan speed	No.	2	2
Air circulation (m³/h)	m³/h	270	400
Tubing length	m	1.5	1.5
Maximum remote con. (by cable)	Length	1.2	1.5
Sound Pressure Level (SPL)	dB(A)	52/52/56	52/54/57
Dimensions (indoor) - Indoor unit	mm	780x450x250	780x450x250
Dimensions (indoor) - Outdoor unit	mm	420x450x250	680x520x250
Net weight - Indoor unit	kg	30	34
Net weight - Outdoor unit	kg	8.5	15
Power supply		1, 2, 3, 5	230, 1+4, 5

Rating conditions

Cooling: indoor air temperature 27°C (80°F) ± 0.5°C, outdoor air temperature 35°C (95°F) ± 0.5°C

Specifications subject to change without notice



		PRICE	
Indoor unit price	Unit	300.00	400.00
Outdoor unit price	Unit	500.00	800.00
Set price	Unit	1,200.00	1,200.00



Residential



SA-P51E



SAP-PFR124E

The best choice to give you continuous flow of cool and dry air where most needed.

- High efficiency on whole range
- Quick coupling connection for easy installation through a window or a wall (split type)
- Ozone-friendly and not flammable R410A refrigerant
- Multi-functional infrared remote controller with built-in temperature sensor (split type)
- 24-hour clock with on/off program timer
- 2 or 3 fan speeds + auto
- 3 operation modes: cool, dry, fan only
- Rotary compressor ensures silent operation
- Long piping connection the Series portless can be placed where you want
- Sleep function ensures gentle and saving energy cooling in the room

ABC-HP14

Up to 25 m² room size

ABC-HP14	
Apparatus	25
Fan speed	3
Air circulation (L/MIN)	360/12/130
Sound pressure level (L/MIN)	14/25/35
Power input W/MAX	75-55
Grid Filter	HEPA Filter & Activated Carbon Filter
Delay Timer	1 Hour / 2 Hour / 3 Hour
Dimensions (mm)	450x450x152
Weight	4.1
Power supply	230, 1~N~30

Specifications subject to change without notice



ANTI-ODOR AND POLLEN FILTER



NEGATIVE ION GENERATOR



3 FAN SPEEDS



TIMER



WIDE AIR INTAKE ON ALL SIDES



DESIGN FOR OPTIMUM OPERATION



ABC-HP14

Create the best atmosphere in your living room

- HEPA long-life filter removes 99% of bacteria, spores and dust
- Carbon filter ensures deodorizing power on whole air flow
- Negative ion generator makes refreshed air fill your living room with negative ions like in a forest or around a waterfall
- Quick inhaling cigarette smoke and house dust by bottom air intake
- Powerful inhaling on whole surface
- Easy-to-clean 3-stage filter can be quickly removed when necessary
- Suitable for optimum operation
- 3 position delay timer
- 3 fan-speeds + control
- Special program for removal of pollen



SANYO

SANYO Light-commercial Air Conditioners enhance the air quality in shops, restaurants and any business site

Sanyo DC-Inverter is outstanding for its rapid cooling and heating power. Their newly developed R410A heat exchangers and microcomputer have formed lightweight, compact, and highly efficient outdoor units.

The twin rotary compressor dramatically reduces vibration and noise during operation, thus ensuring quiet operation.

Up to 4 standard indoor units of different types and capacities can be operated simultaneously with a single outdoor unit.

INDEX OF PRODUCTS:

• Wall mounted PAC-I	pag. 62
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• Semi-concealed 4 way PAC-I	pag. 66
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SPW-KCR184GVH56 • SPW-KCR254GVH56/H8

Power Range from 5.0 kW to 7.1 kW

Performance	WOTED HEAT PUMP			
	size 184		size 254	
Capacity	18	25	25	35
Power input	1425	1715	2280	2280
SEER/SCOP	3.58	3.73	3.21	3.94
Energy class	A	B	C	D
Running ampere (ph 1/3ph)	6.4	8.9	11.7/5.9	12.2/5.9
Actual energy consumption (cooling)	265	312	408	408

Indoor unit	SPW-KCR184GVH56			
	size 184		size 254	
Net connection (pH/L)	1/2"	3/8"	1/2"	3/8"
Maximum distance	21	40	40	50
Sound Power Level (dB)	48	48	50	50
Sound Pressure Level (dB)	48	48	50	50
Dimensions (mm)	250x160x55	250x160x55	250x160x55	250x160x55
Net weight	12	12	12	12
Power supply	1, 2, 3, 5, 10	1, 2, 3, 5, 10	1, 2, 3, 5, 10	1, 2, 3, 5, 10

Outdoor unit	SPW-KCR184GVH56			
	size 184		size 254	
Sound Power Level (dB)	48	48	50	50
Sound Pressure Level (dB)	48	48	50	50
Dimensions (mm)	250x160x55	250x160x55	250x160x55	250x160x55
Net weight	12	12	12	12
Power supply	1, 2, 3, 5, 10	1, 2, 3, 5, 10	1, 2, 3, 5, 10	1, 2, 3, 5, 10

Refrigerant circuit	size 184			
	size 184		size 254	
Tube diameter (mm)	6.35/9.52/12.7/15.88	6.35/9.52/12.7/15.88	6.35/9.52/12.7/15.88	6.35/9.52/12.7/15.88
Max piping length (m)	40	40	40	40
Max riser diff. (m)	30/15	30/15	30/15	30/15
Charging piping length (m)	30	30	30	30
Amount of additional refrigerant (g)	30	30	30	30

Specifications subject to change without notice.
* Data not available at the time of publication.

Operating conditions:
Cooling: indoor air temperature (27°C/81°F), outdoor air temperature (35°C/95°F) / (15°C/59°F)
Heating: indoor air temperature (20°C/68°F), outdoor air temperature (7°C/45°F) / (-15°C/5°F)



Indoor unit price	PRICE	
	Unit	Price
Indoor unit price	Unit	1,000.00
Indoor unit price	Unit	1,000.00
Indoor unit price	Unit	1,000.00

04000



Option remote controller



SPW-KR-GH56(B)



Easy installation and operation equivalent to that for a room air conditioner.

New 3-phase



SPW-KR-GH56/H8B

- Two-stage compressor dramatically reduces vibration and noise during operation.
- DC-inverter control
- Wide outdoor unit range: single-phase or three phase
- Lighter and smaller unit makes the installation easier
- Quick start-up
- Extra quiet and energy saving
- Cooling & Heating operation down to -15°C
- Multi-functional wireless remote control with built-in temperature control
- Piping outlet in three directions
- Anti-mould filters are standard equipment
- Washable front panel

SPW-TDCR184GVH56 • SPW-TDCR254GVH56/H8
SPW-TDCR364GVH56/H8 • SPW-TDCR484GVH56/H8
SPW-TDCR604GVH56/H8

Power Range from 5.3 kW to 14.0 kW

Performance	INVERTER PAC PUMP									
	size 184		size 254		size 364		size 484		size 604	
Cooling	15.2	16.4	23.1	25.4	36.1	48.1	60.1	72.1	84.1	96.1
Heating	15.2	16.4	23.1	25.4	36.1	48.1	60.1	72.1	84.1	96.1
Power input	W	184	254	364	484	604	724	844	964	1084
SEER/SCOP	6.0/5.0	7.0/6.0	7.5/6.5	8.0/7.0	8.5/7.5	9.0/8.0	9.5/8.5	10.0/9.0	10.5/9.5	11.0/10.0
Energy class	A	B	C	D	E	F	G	H	I	J
Running ampere (ph / N/A)	A	5.5 / 5.5	12.8 / 12.8	16.2 / 16.2	20.5 / 20.5	24.8 / 24.8	29.1 / 29.1	33.4 / 33.4	37.7 / 37.7	42.0 / 42.0
Actual energy consumption cooling (kW)	0.02	-	0.07	-	0.12	-	0.17	-	0.22	-

Index test	SPW-TDCR184GVH56									
	size 184		size 254		size 364		size 484		size 604	
Air circulation (m³/h)	175	184	254	364	484	604	724	844	964	1084
Sound Power Level (dB)	45-4	47	49	51	53	55	57	59	61	63
Sound Pressure Level (dB)	45-4	47	49	51	53	55	57	59	61	63
Dimensions (mm)	184x184x184	254x254x254	364x364x364	484x484x484	604x604x604	724x724x724	844x844x844	964x964x964	1084x1084x1084	1204x1204x1204
Net weight	14	21	31	41	51	61	71	81	91	101
Power supply	1-20-10	220-1-16-30	220-1-16-30	220-1-16-30	220-1-16-30	220-1-16-30	220-1-16-30	220-1-16-30	220-1-16-30	220-1-16-30

Index test	SPW-TDCR184GVH56									
	size 184		size 254		size 364		size 484		size 604	
Air circulation (m³/h)	175	184	254	364	484	604	724	844	964	1084
Sound Power Level (dB)	45-4	47	49	51	53	55	57	59	61	63
Sound Pressure Level (dB)	45-4	47	49	51	53	55	57	59	61	63
Dimensions (mm)	184x184x184	254x254x254	364x364x364	484x484x484	604x604x604	724x724x724	844x844x844	964x964x964	1084x1084x1084	1204x1204x1204
Net weight	14	21	31	41	51	61	71	81	91	101
Power supply	1-20-10	220-1-16-30	220-1-16-30	220-1-16-30	220-1-16-30	220-1-16-30	220-1-16-30	220-1-16-30	220-1-16-30	220-1-16-30

Refrigerant circuit	SPW-TDCR184GVH56									
	size 184		size 254		size 364		size 484		size 604	
Tube diameter (mm)	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Max piping length (m)	40	40	40	40	40	40	40	40	40	40
Max. oil (liters)	30	30	30	30	30	30	30	30	30	30
Charging piping length (m)	30	30	30	30	30	30	30	30	30	30
Amount of additional refrigerant (g)	30	30	30	30	30	30	30	30	30	30

Specifications subject to change without notice.
*Data for reference at the time of publication.

Operating conditions:
Cooling: Indoor air temperature (27°C / 81°F), Outdoor air temperature (35°C / 95°F) / (27°C / 81°F)
Heating: Indoor air temperature (20°C / 68°F), Outdoor air temperature (7°C / 45°F) / (20°C / 68°F)



Index test price	PRICE		
	Unit	Price	Price
Indoor unit price	Each	1,000.00	1,000.00
Outdoor unit price	Each	1,000.00	1,000.00

04900



Option remote controller



SPW-TDR_GH56(B)



SPW-CR_GVH56/H8B

Easy installation even in existing buildings

- Twin rotary compressor dramatically reduces vibration and noise during operation
- DC inverter control
- Wide outdoor unit range single-phase or three-phase
- All indoor units just 210mm high
- Large and wide air distribution
- Quick start up
- Most suitable for long and narrow space
- Newly developed DC fan motor for increased efficiency
- Cooling & Heating operation down to -15°C
- Industry low sound level
- Multi-functional wireless remote control with built-in temperature control
- Piping outlet in three directions
- Fresh air knockout for improved air quality

SPW-XDCR184GVH56 • SPW-XDCR254GVH56/H8
SPW-XDCR364GVH56/H8 • SPW-XDCR484GVH56/H8
SPW-XDCR604GVH56/H8

Power Range from 5.0 kW to 14.0 kW

Performance	Semi-concealed 4 way PAC-i									
	size 184		size 254		size 364		size 484		size 604	
Cooling	18.4	25.4	36.4	48.4	60.4	72.4	84.4	96.4	108.4	120.4
Heating	18.4	25.4	36.4	48.4	60.4	72.4	84.4	96.4	108.4	120.4
Capacity	5.0	7.0	10.0	14.0	18.0	25.0	36.0	48.0	60.0	72.0
Power input	8	14	21	30	39	54	72	90	108	126
EVAPOR	8	14	21	30	39	54	72	90	108	126
Energy class	A	A	A	A	A	A	A	A	A	A
Running ampere (1ph / 3ph)	18.4 / 6.5	25.4 / 9.0	36.4 / 13.0	48.4 / 17.0	60.4 / 21.0	72.4 / 26.0	84.4 / 30.0	96.4 / 34.0	108.4 / 38.0	120.4 / 42.0
Sound energy consumption (cooling)	0.85	1.05	1.25	1.45	1.65	1.85	2.05	2.25	2.45	2.65

Index Data	Semi-concealed 4 way PAC-i									
	size 184		size 254		size 364		size 484		size 604	
Air circulation (m³/min)	18.4	25.4	36.4	48.4	60.4	72.4	84.4	96.4	108.4	120.4
Modular control	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Sound Power Level (dB)	45.4	45.4	45.4	45.4	45.4	45.4	45.4	45.4	45.4	45.4
Sound Pressure Level (dB)	45.4	45.4	45.4	45.4	45.4	45.4	45.4	45.4	45.4	45.4
Dimensions (HxWxD) - 1ph	mm	254x404x404	254x404x404	254x404x404	254x404x404	254x404x404	254x404x404	254x404x404	254x404x404	254x404x404
Dimensions (HxWxD) - 3ph	mm	254x404x404	254x404x404	254x404x404	254x404x404	254x404x404	254x404x404	254x404x404	254x404x404	254x404x404
Net weight - 1ph	kg	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4
Net weight - 3ph	kg	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Power supply	1 ph, 110V									

Outdoor Unit	Semi-concealed 4 way PAC-i									
	size 184		size 254		size 364		size 484		size 604	
Sound Power Level (dB)	45.4	45.4	45.4	45.4	45.4	45.4	45.4	45.4	45.4	45.4
Sound Pressure Level (dB)	45.4	45.4	45.4	45.4	45.4	45.4	45.4	45.4	45.4	45.4
Dimensions (HxWxD)	mm	364x404x404	364x404x404	364x404x404	364x404x404	364x404x404	364x404x404	364x404x404	364x404x404	364x404x404
Net weight	kg	40	40	40	40	40	40	40	40	40
Power supply	1 ph, 110V									

Refrigerant circuit	Semi-concealed 4 way PAC-i									
	size 184		size 254		size 364		size 484		size 604	
Tube diameter (Refrigerant)	mm	1/2 (1/2) - 1/2 (1/2)	1/2 (1/2) - 1/2 (1/2)	1/2 (1/2) - 1/2 (1/2)	1/2 (1/2) - 1/2 (1/2)	1/2 (1/2) - 1/2 (1/2)	1/2 (1/2) - 1/2 (1/2)	1/2 (1/2) - 1/2 (1/2)	1/2 (1/2) - 1/2 (1/2)	1/2 (1/2) - 1/2 (1/2)
Max piping length	m	30	30	30	30	30	30	30	30	30
Max. max. oil (g) (Refrigerant)	g	30	30	30	30	30	30	30	30	30
Chargeless piping length	m	30	30	30	30	30	30	30	30	30
Amount of additional refrigerant	g	30	30	30	30	30	30	30	30	30

Specifications subject to change without notice.
Data not available at the time of publication.

Rating conditions
Cooling: Indoor air temperature 27°C (81°F) DB, Outdoor air temperature 35°C (95°F) DB
Heating: Indoor air temperature 20°C (68°F) DB, Outdoor air temperature 7°C (45°F) DB



Model and price	PRICE	
	Unit	Price
Indoor unit price	Unit	200.00
Outdoor unit price	Unit	100.00
Set price	Unit	300.00



Option remote controller



SPW-XDR...GH56(B)



New 3-phase
New 3-phase



SPW-CR...GH56/H8B

- Twin-rotary compressor dramatically reduces vibration and noise during operation
- DC inverter control
- Wide outdoor unit range: single-phase or three phase
- Reduced sound level
- Powerful drain pump gives 800mm lift
- Piping outlet in three directions
- Newly developed DC fan motor for increased efficiency
- Cooling & Heating operation down to -15°C
- Improved air-flow to prevent shuffling effect
- Multi-functional wireless remote control with built-in temperature control
- Easy fine adjustment of the body suspension height
- Fresh air knockout for improved air quality

SPW-UCR184GVH56 • SPW-UCR254GVH56/H8
SPW-UCR364GVH56/H8 • SPW-UCR484GVH56/H8
SPW-UCR604GVH56/H8

Power Range from 5.0 kW to 14.0 kW

Performance	INVERTER MULTI PUMP									
	size 184		size 254		size 364		size 484		size 604	
Cooling	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating
Capacity	18.0	18.0	25.0	25.0	36.0	36.0	48.0	48.0	60.0	60.0
Power input	5.0	10.0	7.0	14.0	10.0	20.0	14.0	28.0	20.0	40.0
SEER/COP	4.71	3.26	4.85	3.38	4.85	3.38	4.85	3.38	4.85	3.38
Energy class	A	B	A	B	A	B	A	B	A	B
Running ampere / 1ph / 3ph	5	5.7	6.1	12.1	6.1	12.1	6.1	12.1	6.1	12.1
Rated energy consumption cooling (kW)	5.0	-	7.0	-	10.0	-	14.0	-	20.0	-

Basic Data	SPW-UCR184GVH56									
	size 184		size 254		size 364		size 484		size 604	
As installation (mm)	400	400	400	400	400	400	400	400	400	400
Maximum distance (mm)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Ex. static pressure (Pa)	40	40	40	40	40	40	40	40	40	40
Sound Power Level (dB)	55	55	55	55	55	55	55	55	55	55
Sound Pressure Level (dB)	45	45	45	45	45	45	45	45	45	45
Dimensions (mm)	400	400	400	400	400	400	400	400	400	400
Net weight (kg)	25	25	32	32	47	47	67	67	87	87
Power supply	3 phase	3 phase	3 phase	3 phase	3 phase	3 phase	3 phase	3 phase	3 phase	3 phase

Basic Data	SPW-UCR184GVH56									
	size 184		size 254		size 364		size 484		size 604	
Sound Power Level (dB)	55	55	55	55	55	55	55	55	55	55
Sound Pressure Level (dB)	45	45	45	45	45	45	45	45	45	45
Dimensions (mm)	400	400	400	400	400	400	400	400	400	400
Net weight (kg)	25	25	32	32	47	47	67	67	87	87
Power supply	3 phase	3 phase	3 phase	3 phase	3 phase	3 phase	3 phase	3 phase	3 phase	3 phase

Refrigerant circuit	size 184									
	size 184		size 254		size 364		size 484		size 604	
Circuit diameter (mm)	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Max piping length (m)	40	40	40	40	40	40	40	40	40	40
Max pipe (1/2) (mm)	30	30	30	30	30	30	30	30	30	30
Charge piping length (m)	30	30	30	30	30	30	30	30	30	30
Amount of additional refrigerant (kg)	0	0	0	0	0	0	0	0	0	0

See Bulletin board for charge without note
(Does not appear at the time of publication)

Rating conditions
Cooling: indoor air temperature 27°C (80°F) RH 50% Outdoor air temperature 35°C (95°F) RH 50%
Heating: indoor air temperature 20°C (68°F) Outdoor air temperature 7°C (45°F) RH 50%



Model and price	PRICE	
	Unit price	Set price
SPW-UCR184GVH56	100,000	100,000
SPW-UCR254GVH56/H8	100,000	100,000
SPW-UCR364GVH56/H8	1,000,000	1,000,000

04900



Option remote controller



SPW-URL...GH56(B)

Ideal solution for flexible and concealed air distribution to realize comfortable space



SPW-CR...GVH56/H8B

- Twin-relay compressor dramatically reduces vibration and noise during operation.
- DC-Inverter control
- Wide outdoor unit range: single-phase or three-phase
- Extremely quiet operation from 25 (dB)
- High static pressure available
- Integrated drain pump gives 70mm H₂O
- Easy maintenance and serviceability by external installation of the electric box
- Standard 250mm spigots ensure simple connection to ductwork
- Cooling & Heating operation down to -15°C
- Air off sensor avoids cold air dumping
- Multi-functional wireless remote control with built-in temperature control
- Piping outlet in three direction
- Fresh air knockout for improved air quality

SPW-DC0705H8 • SPW-DC0905H8

Power Range from 20.0 kW to 25.0 kW

CONSTANT SPEED HEAT PUMP					
Performance		Cooling		Heating	
Capacity	kW	20.0	22.4	25.0	28.9
Power input	kW	7.10	7.70	10.90	10.70
COP/EER	kW/kW	2.82	2.94	2.34	2.71
Running ampere	A	14.6	15.2	21.1	21.2

Outdoor Unit			
	SPW-DC0705H8	SPW-DC0905H8	SPW-DC1105H8
Refrigerant (R410A)	307.5	307.5	307.5
Refrigerant (kg)	8.4	11.2	15.2
External static pressure (Pa)	170	170	170
Sound Power Level (dB)	80 A	80 A	80 A
Sound Pressure Level (dB)	80 A	80 A	80 A
Dimensions (mm)	457/1425/120	457/1425/120	457/1425/120
Net weight	kg	110	130
Power supply	1, 2, 3, 5, 7, 9	1, 2, 3, 5, 7, 9	1, 2, 3, 5, 7, 9

Indoor Unit			
	SPW-DC0705H8	SPW-DC0905H8	SPW-DC1105H8
Sound Power Level (dB)	80 A	80 A	80 A
Sound Pressure Level (dB)	80 A	80 A	80 A
Dimensions (mm)	1043/500/170	1043/500/170	1043/500/170
Net weight	kg	27	27
Power supply	1, 2, 3, 5, 7, 9	1, 2, 3, 5, 7, 9	1, 2, 3, 5, 7, 9

Refrigerant circuit			
	SPW-DC0705H8	SPW-DC0905H8	SPW-DC1105H8
Tube diameter (mm)	12.7 (1/2")	12.7 (1/2")	12.7 (1/2")
Max. piping length (m)	120	120	120
Max. elev. diff. (m) (allowable)	30	30	30
Chargeable piping length (m)	30	30	30
Amount of additional refrigerant (g)	80	80	80

Refrigerant subject to change without notice

Rating conditions
Cooling: Indoor air temperature 27°C (80°F), Outdoor air temperature 35°C (95°F)
Heating: Indoor air temperature 20°C (68°F), Outdoor air temperature 7°C (45°F)



Price		
Model and price	Unit	Price
SPW-DC0705H8	Unit	1,000.00
SPW-DC0905H8	Unit	1,000.00
SPW-DC1105H8	Unit	1,000.00

R410A



SPW-D...H

SPW-C...H8



Option remote controller

Powerful and compact design for easier installation in any commercial space

- High static pressure available for optimum air distribution
- Low noise design
- R410A refrigerant
- Highly efficient scroll compressor
- Piping length up to 120m
- Cooling & Heating operation down to -15°C
- Air off sensor avoids cold air dumping
- Multi-functional wireless remote control with built-in temperature control
- Piping outlet in three directions
- Fresh air knockout for improved air quality

COMBINATIONS

Outdoor Unit	Performance		Indoor Unit	
	Cooling	Heating	Fans	in Fans
SPW-CHX40GH56H - MASTER MODEL	27.1	15.5	128 G2	-
SPW-CHX40GH56H - SLAVE MODEL	18.0	11.2	128 G2	-
SPW-CHX40GH56H - MASTER MODEL	12.5	14.0	204 G2	128 G4
SPW-CHX40GH56H - SLAVE MODEL	14.0	16.0	104 G2	128 G4
SPW-CHX40 - CONSTANT SPEED MODEL	25.0	23.4	364 G2	204 G4
SPW-CHX40 - CONSTANT SPEED MODEL	25.0	25.0	404 G2	204 G4

Indoor Unit	SPW-CHX40GH56H	SPW-CHX40GH56H	SPW-CHX40GH56H	SPW-CHX40GH56H	SPW-CHX40GH56H
Air circulation (m³/s)	47.5	120/120/120	120/120/120	120/120/120	120/120/120
Sound Power Level (dB)	68 A	68	68	68	68
Sound Pressure Level (dB(A))	68 A	50/51/51	50/51/51	50/51/51	50/51/51
Dimensions (mm)	mm	200/200/200	200/200/200	200/200/200	200/200/200
Net weight	kg	12	12	12	12

Indoor Unit	SPW-CHX40GH56H	SPW-CHX40GH56H	SPW-CHX40GH56H	SPW-CHX40GH56H	SPW-CHX40GH56H	SPW-CHX40GH56H
Air circulation (m³/s)	47.5	120/120/120	120/120/120	120/120/120	120/120/120	120/120/120
Sound Power Level (dB)	68 A	68	68	68	68	68
Sound Pressure Level (dB(A))	68 A	50/51/51	50/51/51	50/51/51	50/51/51	50/51/51
Dimensions (mm)	mm	200/200/200	200/200/200	200/200/200	200/200/200	200/200/200
Net weight	kg	21	21	21	21	21

Indoor Unit	SPW-CHX40GH56H	SPW-CHX40GH56H	SPW-CHX40GH56H	SPW-CHX40GH56H	SPW-CHX40GH56H	SPW-CHX40GH56H
Air circulation (m³/s)	47.5	120/120/120	120/120/120	120/120/120	120/120/120	120/120/120
Sound Power Level (dB)	68 A	68	68	68	68	68
Sound Pressure Level (dB(A))	68 A	50/51/51	50/51/51	50/51/51	50/51/51	50/51/51
Dimensions (mm)	mm	200/200/200	200/200/200	200/200/200	200/200/200	200/200/200
Net weight	kg	21	21	21	21	21
Net weight - Panel	kg	4.1	4.1	4.1	4.1	4.1

Indoor Unit	SPW-CHX40GH56H	SPW-CHX40GH56H	SPW-CHX40GH56H	SPW-CHX40GH56H	SPW-CHX40GH56H	SPW-CHX40GH56H
Air circulation (m³/s)	47.5	120/120/120	120/120/120	120/120/120	120/120/120	120/120/120
Sound Power Level (dB)	68 A	68	68	68	68	68
Sound Pressure Level (dB(A))	68 A	50/51/51	50/51/51	50/51/51	50/51/51	50/51/51
Dimensions (mm)	mm	200/200/200	200/200/200	200/200/200	200/200/200	200/200/200
Net weight	kg	24	24	24	24	24

Indoor Unit	SPW-CHX40GH56H	SPW-CHX40GH56H	SPW-CHX40GH56H
Air circulation (m³/s)	47.5	120/120/120	120/120/120
Sound Power Level (dB)	68 A	68	68
Sound Pressure Level (dB(A))	68 A	50/51/51	50/51/51
Dimensions (mm)	mm	200/200/200	200/200/200
Net weight	kg	15.1	15.1
Net weight - Panel	kg	1.9	1.9

Indoor Unit	SPW-CHX40GH56H	SPW-CHX40GH56H	SPW-CHX40GH56H
Air circulation (m³/s)	47.5	120/120/120	120/120/120
Sound Power Level (dB)	68 A	68	68
Sound Pressure Level (dB(A))	68 A	50/51/51	50/51/51
Dimensions (mm)	mm	200/200/200	200/200/200
Net weight	kg	15.1	15.1

Indoor Unit	SPW-CHX40GH56H	SPW-CHX40GH56H	SPW-CHX40GH56H
Air circulation (m³/s)	47.5	120/120/120	120/120/120
Sound Power Level (dB)	68 A	68	68
Sound Pressure Level (dB(A))	68 A	50/51/51	50/51/51
Dimensions (mm)	mm	200/200/200	200/200/200
Net weight	kg	30	30

Specifications subject to change without notice

Rating conditions
 Cooling: Indoor air temperature 27°C DB/19°C WB
 Outdoor temperature 35°C DB - 24°C WB
 Heating: Indoor air temperature 19°C DB
 Outdoor air temperature 7°C DB - 4°C WB

Declaration under the European
 SPW-CHX40GH56H (Power 15.1 kW)
 SPW-CHX40GH56H (Power 15.1 kW)



Option remote controller







SPW-CR-GH56H

Versatile and economical solution for air conditioning irregular-shaped areas

- Up to 4 standard indoor units of different types and capacities can be operated simultaneously with a single outdoor unit.
- Two rotary compressors with DC-Inverter control (in 795 and 995 models).
- All indoor units can operate in a single mode.
- Multi-functional wireless remote control with built-in temperature sensor.
- Compact outdoor units ensure easy installation and space saving.
- Low noise design.





Sanyo control equipment meets the needs of variety of customers

(for a description of the control systems refer to section VRF page 110)

Operation system	Individual control system			Three operation
Basic	Normal operation	Operation from each unit	Quick and easy operation	Daily and weekly program
External appearance				
Type model name	Three-wire remote control RCS-700000	Wireless remote control RCS-400000 (NLR) RCS-400000 (NLR) RCS-400000 (NLR) RCS-400000 (NLR) RCS-400000 (NLR)	Simplified remote control RCS-400000	Schedule timer SMA-700000
N. of air units which can be controlled	1 group, 8 units	1 group, 8 units	1 group, 8 units	64 groups, max. 64 units
Location of use	• Up to 2 units can be connected per group	• Up to 2 units can be connected per group	• Up to 2 units can be connected per group	• Power supply from the system controller • In case of no system controller, possibility of connection to the T12 terminal of an indoor unit
Connectable indoor unit	4 series indoor unit	4 series indoor unit	4 series indoor unit	3 series indoor unit 4 series indoor unit

Function	ON/OFF	On/Off	On/Off	On/Off
On/Off	○	○	○	○
On/Off	○	○	○	○
On/Off	○	○	○	○
On/Off	○	○	○	○
On/Off	○	○	○	○
On/Off	○	○	○	○
On/Off	○	○	○	○
On/Off	○	○	○	○
On/Off	○	○	○	○

○ Operation with the system "On/Off" for the system "On/Off" for the system "On/Off" for the system

Operation system	Individual control system			
Basic	Operation with different functions from each station	Daily ON/OFF operation from each station	Simplified charge ratio for each indoor	
			Each indoor panel	Personal computer (data master)
External appearance				
Type model name	System controller SMA-400000	ON/OFF controller SMA-400000	Intelligent controller SMA-400000	Communication adapter SMA-400000
N. of air units which can be controlled	64 groups, max. 64 units	16 groups, max. 16 units	64 units in 4 systems, max. 256 units	2 systems, max. 128 units
Use restriction	• Up to 16 units can be connected to one system • Each indoor unit is 1 inch unit • 1 inch unit connection is possible • Possibility of use • Use without remote controller is possible	• Up to 16 units in 16 systems • Each indoor unit is 1 inch unit • 1 inch unit connection is possible • Possibility of use • Use without remote controller is possible	• Communication adapter (SMA-400000) required for use in each system	
Connectable indoor unit	3 series indoor unit 4 series indoor unit	2 series indoor unit 4 series indoor unit	3 series indoor unit 4 series indoor unit	3 series indoor unit 4 series indoor unit

Function	ON/OFF	On/Off	On/Off	On/Off
On/Off	○	○	○	○
On/Off	○	○	○	○
On/Off	○	○	○	○
On/Off	○	○	○	○
On/Off	○	○	○	○
On/Off	○	○	○	○
On/Off	○	○	○	○
On/Off	○	○	○	○
On/Off	○	○	○	○

○ Operation with the system "On/Off" for the system "On/Off" for the system "On/Off" for the system



SANYO

SANYO Variable Refrigerant Flow systems
a powerful range perfect for shopping centres,
hotels, offices and hospitals

Full range based on ozone-friendly R410A refrigerant ensure high performances to create a comfortable living space under different demands. The ECO-i series is designed for energy saving, easy installation and high efficiency, using electrical supply as main power source.

The Sanyo GHP (gas engine driven heat pump) uses clean burning natural gas for high efficiency operation with very limited use of electrical power. Since it is designed to work combined with water piping, the Sanyo GHP offers a practical and efficient way to renew an existing air-conditioning system.

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SPW-CR365GXH56/H8 • SPW-CR485GXH56/H8
SPW-CR605GXH56/H8

Power Range from 11.2 kW to 15.5kW

		A		B		C	
Model name		SPW-CR365GXH56/H8		SPW-CR485GXH56/H8		SPW-CR605GXH56/H8	
Power supply capacity	Cooling	36kW	48kW	60kW	72kW	84kW	96kW
	Heating	36kW	48kW	60kW	72kW	84kW	96kW
EER	Cooling	4.0	4.0	4.0	4.0	4.0	4.0
	Heating	4.0	4.0	4.0	4.0	4.0	4.0
SEER	Cooling	12.0	12.0	12.0	12.0	12.0	12.0
	Heating	12.0	12.0	12.0	12.0	12.0	12.0
Power input	Cooling	9.0kW	12.0kW	15.0kW	18.0kW	21.0kW	24.0kW
	Heating	9.0kW	12.0kW	15.0kW	18.0kW	21.0kW	24.0kW
Power output	Cooling	36.0kW	48.0kW	60.0kW	72.0kW	84.0kW	96.0kW
	Heating	36.0kW	48.0kW	60.0kW	72.0kW	84.0kW	96.0kW
Refrigerant (R410A)		3.6kg	4.8kg	6.0kg	7.2kg	8.4kg	9.6kg
Net weight		12kg	16kg	20kg	24kg	28kg	32kg
Net volume		0.05m³	0.07m³	0.09m³	0.11m³	0.13m³	0.15m³
Quantity of refrigerant at shipment		0.05kg	0.07kg	0.09kg	0.11kg	0.13kg	0.15kg
Piping connection		1/2" (15.8mm)	1/2" (15.8mm)	1/2" (15.8mm)	1/2" (15.8mm)	1/2" (15.8mm)	1/2" (15.8mm)
Maximum height		10m	10m	10m	10m	10m	10m
Power input		9.0kW	12.0kW	15.0kW	18.0kW	21.0kW	24.0kW
Power output		36.0kW	48.0kW	60.0kW	72.0kW	84.0kW	96.0kW
COP (cooling)		4.0	4.0	4.0	4.0	4.0	4.0

Rating conditions
Cooling: indoor air temperature 27°C DB/19°C WB, outdoor air temperature 35°C DB - 24°C WB
Heating: indoor air temperature 20°C DB, outdoor air temperature 7°C DB - 6°C WB

Independent piping length		60	120	180
Maximum number of connected indoor units	1	2	3	4
Indoor/indoor unit piping length	10m	20m	30m	40m
Maximum indoor piping length	10m	20m	30m	40m
Maximum outdoor piping length	10m	20m	30m	40m
Maximum distance between indoor unit	10m	20m	30m	40m
Maximum distance between outdoor unit	10m	20m	30m	40m
Maximum distance between indoor and outdoor unit	10m	20m	30m	40m

Distribution unit (D-100)		Model name	Rating capacity after unit
For indoor unit	1	SPW-CR365GXH56/H8	36kW



System example



SPW-CR_H56(B)/H8

- Top class COP+ 4.06 (in case of 4HP cooling)
- DC Inverter Compressor and Fan
- 8 indoor units can be connected to 1 outdoor unit (in case of 8HP)
- Wide model range: single phase and three phase
- It is possible to perform cooling operation at outdoor temperatures down to -18°C
- Piping length is extended to 150m
- Indoor units are the same as those of ECO-i Series



The advanced technology of ECO-i 2-WAY MULTI



Outdoor units have been unified in a body of the same size and construction of the type. It allows a neat fit even when several units are installed and space savings in the top class of the industry have been realized.

Improved operation efficiency
In addition to the development of a new DC fan motor with high output and high efficiency, the output loss has been reduced by reducing the resistance of the fan guard. It contributes widely to COP increasing.

The constant-speed compressor adopts a high-performance lower high-pressure scroll. In comparison with the conventional low-pressure scroll, the oil behavior is stabilized. COP is improved and the reliability is also improved.

Improvement of the heat exchanger
Heatpipes with a diameter of 7 mm are used for the heat exchanger and the radiation area has been increased. In addition, the air speed distribution has been improved by 4 direction outdoor fan and the COP has also been improved.

Review of the layout of the structural parts
Noise reduction has been realized by arranging the compressor in a special machine room at the bottom.

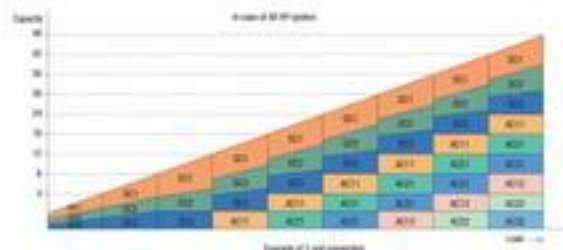
Close side-by-side installation to promote
The mounting fitting for the outdoor unit has been changed to front and back, so that the units can be installed side by side with just 100 mm between units and reduction of the installation space has been realized.

Smooth capacity control from 0.8 HP to 48 HP

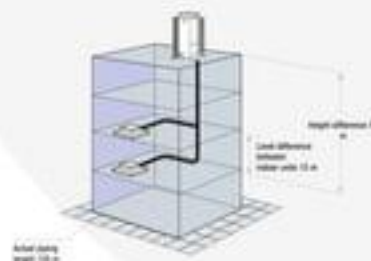
By combination of a DC inverter compressor with a constant-speed compressor, the high harmonics generated by the DC inverter are suppressed to a minimum.
For all units of 8, 10, 12, 14 and 16 HP, a DC inverter and a constant-speed compressor both are installed. Correspondence to capacity control, difficult with a constant-speed compressor, is possible smoothly with a DC inverter. The performance difference at the time of start of a constant-speed compressor also is eliminated.

Comp. HP	Unit 1 (main)	Unit 2 (sub-1)	Unit 3 (sub-2)
DC comp.	4.0	4.0	5.0
AC comp.	5.0	5.0	5.0
AC comp.	5.0	5.0	5.0

(Unit 1 and 2 are connected)



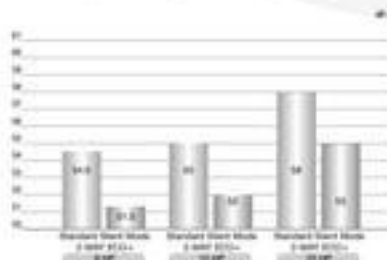
Correspondence to long piping in the top class of the industry



The reduction in the refrigerant volume by piping size down has extended the piping length to an actual length of 150 m and a total length of 300 m, the top class in the industry. The possible installation area for indoor and outdoor units has been widened and system deployment with a high degree of freedom has become possible.

Actual piping length 100 m → 150 m
Equivalent piping length 120 m → 175 m
Total piping length 150 m → 300 m

Low-operating sound design in the top class of the industry

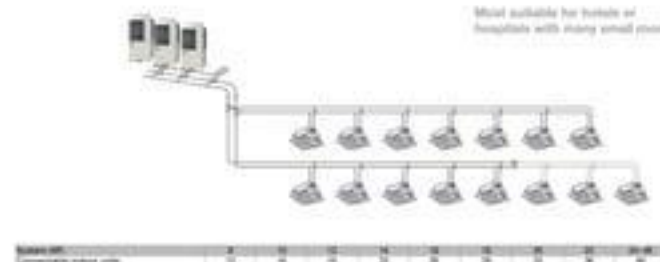


Noise reduction has been realized by using of large-diameter plastic fans and low-noise plastic grilles.

- A silent function has been provided, making possible a further reduction of 3 dB (A).
- The outdoor fan speed can be used only also switching to silent mode from the outdoor remote control unit.

The silent capacity cannot be performed in silent mode.

Increased max. number of connectable indoor units



Mixed available for hotels or hospitals with many small rooms.

SPW-CR704GDZH8 • SPW-CR904GDZH8 • SPW-CR1154GDZH8
SPW-CR1304GDZH8 • SPW-CR1404GDZH8

Power Range from 22.4 kW to 135 kW

[illegible]

		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG	CH	CI	CJ	CK	CL	CM	CN	CO	CP	CQ	CR	CS	CT	CU	CV	CW	CX	CY	CZ	DA	DB	DC	DD	DE	DF	DG	DH	DI	DJ	DK	DL	DM	DN	DO	DP	DQ	DR	DS	DT	DU	DV	DW	DX	DY	DZ	EA	EB	EC	ED	EE	EF	EG	EH	EI	EJ	EK	EL	EM	EN	EO	EP	EQ	ER	ES	ET	EU	EV	EW	EX	EY	EZ	FA	FB	FC	FD	FE	FF	FG	FH	FI	FJ	FK	FL	FM	FN	FO	FP	FQ	FR	FS	FT	FU	FV	FW	FX	FY	FZ	GA	GB	GC	GD	GE	GF	GG	GH	GI	GJ	GK	GL	GM	GN	GO	GP	GQ	GR	GS	GT	GU	GV	GW	GX	GY	GZ	HA	HB	HC	HD	HE	HF	HG	HH	HI	HJ	HK	HL	HM	HN	HO	HP	HQ	HR	HS	HT	HU	HV	HW	HX	HY	HZ	IA	IB	IC	ID	IE	IF	IG	IH	II	IJ	IK	IL	IM	IN	IO	IP	IQ	IR	IS	IT	IU	IV	IW	IX	IY	IZ	JA	JB	JC	JD	JE	JF	JG	JH	JI	IJ	JK	KL	KM	KN	KO	KP	KQ	KR	KS	KT	KU	KV	KW	KX	KY	KZ	LA	LB	LC	LD	LE	LF	LG	LH	LI	LJ	LK	LM	LN	LO	LP	LQ	LR	LS	LT	LU	LV	LW	LX	LY	LZ	MA	MB	MC	MD	ME	MF	MG	MH	MI	MJ	MK	ML	MM	MN	MO	MP	MQ	MR	MS	MT	MU	MV	MW	MX	MY	MZ	NA	NB	NC	ND	NE	NF	NG	NH	NI	NJ	NK	NL	NM	NN	NO	NP	NQ	NR	NS	NT	NU	NV	NW	NX	NY	NZ	OA	OB	OC	OD	OE	OF	OG	OH	OI	OJ	OK	OL	OM	ON	OO	OP	OQ	OR	OS	OT	OU	OV	OW	OX	OY	OZ	PA	PB	PC	PD	PE	PF	PG	PH	PI	PJ	PK	PL	PM	PN	PO	PP	PQ	PR	PS	PT	PU	PV	PW	PX	PY	PZ	QA	QB	QC	QD	QE	QF	QG	QH	QI	QJ	QK	QL	QM	QN	QO	QP	QQ	QR	QS	QT	QU	QV	QW	QX	QY	QZ	RA	RB	RC	RD	RE	RF	RG	RH	RI	RJ	RK	RL	RM	RN	RO	RP	RQ	RR	RS	RT	RU	RV	RW	RX	RY	RZ	SA	SB	SC	SD	SE	SF	SG	SH	SI	SJ	SK	SL	SM	SN	SO	SP	SQ	SR	SS	ST	SU	SV	SW	SX	SY	SZ	TA	TB	TC	TD	TE	TF	TG	TH	TI	TJ	TK	TL	TM	TN	TO	TP	TQ	TR	TS	TU	th	tv	tw	tx	ty	tz	u	v	w	x	y	z	aa	ab	ac	ad	ae	af	ag	ah	ai	aj	ak	al	am	an	ao	ap	aq	ar	as	at	au	av	aw	ax	ay	az	ba	bb	bc	bd	be	bf	bg	bh	bi	bj	bk	bl	bm	bn	bo	bp	bq	br	bs	bt	bu	bv	bw	bx	by	bz	ca	cb	cc	cd	ce	cf	cg	ch	ci	cj	ck	cl	cm	cn	co	cp	cq	cr	cs	ct	cu	cv	cw	cx	cy	cz	da	db	dc	dd	de	df	dg	dh	di	dj	dk	dl	dm	dn	do	dp	dq	dr	ds	dt	du	dv	dw	dx	dy	dz	ea	eb	ec	ed	ee	ef	eg	eh	ei	ej	ek	el	em	en	eo	ep	eq	er	es	et	eu	ev	ew	ex	ey	ez	fa	fb	fc	fd	fe	ff	fg	fh	fi	fj	fk	fl	fm	fn	fo	fp	fq	fr	fs	ft	fu	fv	fw	fx	fy	fz	ga	gb	gc	gd	ge	gf	gg	gh	gi	gj	gk	gl	gm	gn	go	gp	gq	gr	gs	gt	gu	gv	gw	gx	gy	gz	ha	hb	hc	hd	he	hf	hg	hh	hi	hj	hk	hl	hm	hn	ho	hp	hq	hr	hs	ht	hu	hv	hw	hx	hy	hz	ia	ib	ic	id	ie	if	ig	ih	ii	ij	ik	il	im	in	io	ip	iq	ir	is	it	iu	iv	iw	ix	iy	iz	ja	jb	jc	jd	je	jf	jj	jk	jl	jm	jn	jo	jp	jq	jr	js	jt	ju	jv	jw	jx	jj	ky	kz	la	lb	lc	ld	le	lf	lg	lh	li	lj	lk	lm	ln	lo	lp	lq	lr	ls	lt	lu	lv	lw	lx	ly	lz	ma	mb	mc	md	me	mf	mg	mh	mi	mj	mk	ml	mm	mn	mo	mp	mq	mr	ms	mt	mu	mv	mw	mx	my	mz	na	nb	nc	nd	ne	nf	ng	nh	ni	nj	nk	nl	nm	nn	no	np	nq	nr	ns	nt	nu	nv	nw	nx	ny	nz	oa	ob	oc	od	oe	of	og	oh	oi	oj	ok	ol	om	on	oo	op	oq	or	os	ot	ou	ov	ow	ox	oy	oz	pa	pb	pc	pd	pe	pf	pg	ph	pi	pj	pk	pl	pm	pn	po	pp	pq	pr	ps	pt	pu	pv	pw	px	py	pz	qa	qb	qc	qd	qe	qf	qg	qh	qi	qj	qk	ql	qm	qn	qo	qp	qq	qr	qs	qt	qu	qv	qw	qx	qy	qz	ra	rb	rc	rd	re	rf	rg	rh	ri	rj	rk	rl	rm	rn	ro	rp	rq	rr	rs	rt	ru	rv	rw	rx	ry	rz	sa	sb	sc	sd	se	sf	sg	sh	si	sj	sk	sl	sm	sn	so	sp	sq	sr	ss	st	su	sv	sw	sx	sy	sz	ta	tb	tc	td	te	tf	tg	th	ti	tj	tk	tl	tm	tn	to	tp	tq	tr	ts	tu	th	tv	tw	tx	ty	tz	ua	ub	uc	ud	ue	uf	ug	uh	ui	uj	uk	ul	um	un	uo	up	uq	ur	us	ut	uu	uv	uw	ux	uy	uz	va	vb	vc	vd	ve	vf	vg	vh	vi	vj	vk	vl	vm	vn	vo	vp	vq	vr	vs	vt	vu	vv	vw	vx	vy	vz	wa	wb	wc	wd	we	wf	wg	wh	wi	wj	wk	wl	wm	wn	wo	wp	wq	wr	ws	wt	wu	wv	ww	wx	wy	wz	xa	xb	xc	xd	xe	xf	yg	yh	yi	yj	yk	yl	ym	yn	yo	yp	yq	yr	ys	yt	yu	yv	yw	yx	yy	yz	za	zb	zc	zd	ze	zf	zg	zh	zi	zj	zk	zl	zm	zn	zo	zp	zq	zr	zs	zt	zu	zv	zw	zx	zy	zz	aa	ab	ac	ad	ae	af	ag	ah	ai	aj	ak	al	am	an	ao	ap	aq	ar	as	at	au	av	aw	ax	ay	az	ba	bb	bc	bd	be	bf	bg	bh	bi	bj	bk	bl	bm	bn	bo	bp	bq	br	bs	bt	bu	bv	bw	bx	by	bz	ca	cb	cc	cd	ce	cf	cg	ch	ci	cj	ck	cl	cm	cn	co	cp	cq	cr	cs	ct	cu	cv	cw	cx	cy	cz	da	db	dc	dd	de	df	dg	dh	di	dj	dk	dl	dm	dn	do	dp	dq	dr	ds	dt	du	dv	dw	dx	dy	dz	ea	eb	ec	ed	ee	ef	eg	eh	ei	ej	ek	el	em	en	eo	ep	eq	er	es	et	eu	ev	ew	ex	ey	ez	fa	fb	fc	fd	fe	ff	fg	fh	fi	fj	fk	fl	fm	fn	fo	fp	fq	fr	fs	ft	fu	fv	fw	fx	fy	fz	ga	gb	gc	gd	ge	gf	gg	gh	gi	gj	gk	gl	gm	gn	go	gp	gq	gr	gs	gt	gu	gv	gw	gx	gy	gz	ha	hb	hc	hd	he	hf	hg	hh	hi	hj	hk	hl	hm	hn	ho	hp	hq	hr	hs	ht	hu	hv	hw	hx	hy	hz	ia	ib	ic	id	ie	if	ig	ih	ii	ij	ik	il	im	in	io	ip	iq	ir	is	it	iu	iv	iw	ix	iy	iz	ja	jb	jc	jd	je	jf	jj	jk	jl	jm	jn	jo	jp	jq	jr	js	jt	ju	jv	jw	jx	jj	ky	kz	la	lb	lc	ld	le	lf	lg	lh	li	lj	lk	lm	ln	lo	lp	lq	lr	ls	lt	lu	lv	lw	lx	ly	lz	ma	mb	mc	md	me	mf	mg	mh	mi	mj	mk	ml	mm	mn	mo	mp	mq	mr	ms	mt	mu	mv	mw	mx	my	mz	na	nb	nc	nd	ne	nf	ng	nh	ni	nj	nk	nl	nm	nn	no	np	nq	nr	ns	nt	nu	nv	nw	nx	ny	nz	oa	ob	oc	od	oe	of	og	oh	oi	oj	ok	ol	om	on	oo	op	oq	or	os	ot	ou	ov	ow	ox	oy	oz	pa	pb	pc	pd	pe	pf	pg	ph	pi	pj	pk	pl	pm	pn	po	pp	pq	pr	ps	pt	pu	pv	pw	px	py	pz	qa	qb	qc	qd	qe	qf	qg	qh	qi	qj	qk	ql	qm	qn	qo	qp	qq	qr	qs	qt	qu	qv	qw	qx	qy	qz	ra	rb	rc	rd	re	rf	rg	rh	ri	rj	rk	rl	rm	rn	ro	rp	rq	rr	rs	rt	ru	rv	rw	rx	ry	rz	sa	sb	sc	sd	se	sf	sg	sh	si	sj	sk	sl	sm	sn	so	sp	sq	sr	ss	st	su	sv	sw	sx	sy	sz	ta	tb	tc	td	te	tf	tg	th	ti	tj	tk	tl	tm	tn	to	tp	tq	tr	ts	tu	th	tv	tw	tx	ty	tz	ua	ub	uc	ud	ue	uf	ug	uh	ui	uj	uk	ul	um	un	uo	up	uq	ur	us	ut	uu	uv	uw	ux	uy	uz	va	vb	vc	vd	ve	vf	vg	vh	vi	vj	vk	vl	vm	vn	vo	vp	vq	vr	vs	vt	vu	vv	vw	vx	vy	vz	wa	wb	wc	wd	we	wf	wg	wh	wi	wj	wk	wl	wm	wn	wo	wp	wq	wr	ws	wt	wu	wv	ww	wx	wy	wz	xa	xb	xc	xd	xe	xf	yg	yh	yi	yj	yk	yl	ym	yn	yo	yp	yq	yr	ys	yt	yu	yv	yw	yx	yy	yz	za	zb	zc	zd	ze	zf	zg	zh	zi	zj	zk	zl	zm	zn	zo	zp	zq	zr	zs	zt	zu	zv	zw	zx	zy	zz
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Influenza virus length		Respiratory syncytial virus length	
Maximum number of cytoplasmic tail spikes	1	Maximum actual virus length	110 nm
Maximum number of surface spikes	42-48	Maximum head diameter (non-enveloped virus)	27-42 nm
Maximum number of cytoplasmic tail spikes	0	Maximum head length	55 nm
Maximum number of surface spikes	61-100		

Testing conditions
Cooling: inlet air temperature 27°C, 28°C, 29°C; Outlet air temperature 20°C, 21°C, 22°C
Heating: inlet air temperature 27°C, 28°C; Outlet air temperature 22°C, 23°C, 24°C

Estimation period (days)	Model name	Estimating capacity (the prod.)
For 10 days (10%)	gpr-4270-4000	12.1 (1.5)
	gpr-4270-6000	33.1 (1.9) - 35.2 (1.8)
	gpr-4270-8000	55.1 (1.9) - 57.3 (1.8)
For 20 days (20%)	gpr-4270-4000	26.1 (1.4)
	gpr-4270-6000	55.1 (1.9) - 57.3 (1.8)



Schlemmer/Votaw 403

ATK-ALP5000
ATK-ALP16000

Solenoid Valve Controller



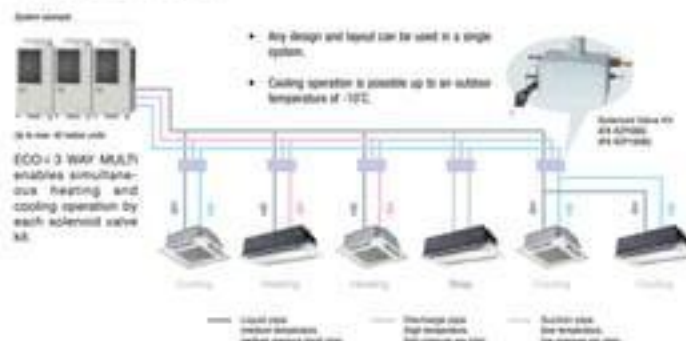
ACC-3W5Y-AD

The ECO-i 3 Way Series have five DC inverter outdoor units from 8 HP to 16 HP as basic models and by combination of up to three units, an air-conditioning capacity of 8 HP to 48 HP can be set according to user requirements.

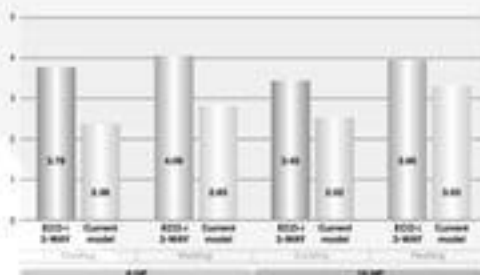
- Simultaneous cooling or heating operation for up to 40 indoor units
- Conforms to COP3.94* as the top class in the industry
- Realization of the smallest installation space, top class in the industry
- Rotation operation function and back-up operation function provided

^aSwallowing velocity and frequency values for 4 different swallowers.

Fully-automatic simultaneous Cooling/Heating operation and heat recovery



Excellent energy saving



The operation efficiency has been improved by using the highly efficient new refrigerant R410A and a DC inverter compressor as well as a new DC fan motor, improvement of the air speed distribution by changing the design of the heat exchanger from 3-direction suction to 4-direction suction and by using a low-loss wire guard for the fan guard.

The advanced technology of ECO-i 3-WAY MULTI



Outdoor units have been unified to a body of the same size and configuration to one size and combination of two types. It allows a neat fit even when several units are installed and space saving in the top area of the building has been realized.

Improved operation efficiency
In addition to the development of a new DC fan motor with high output and high efficiency, the output loss has been reduced by reducing the resistance of the fan guard. It contributes widely to COP increasing.

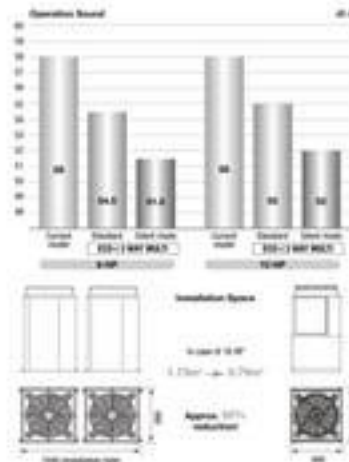
The constant-speed compressor adopts a high-performance lower high-pressure scroll. In comparison with the conventional low-pressure scroll, the oil behavior is stabilized, COP is improved and the reliability is also improved.

Improvement of the heat exchanger
Heat pipes with a diameter of 7 mm are used for the heat exchanger and the radiation area has been increased. In addition, the air speed distribution has been improved by 4-direction suction and the COP has also been improved.

Review of the layout of the structural parts
Noise reduction has been realized by arranging the compressor in a special machine room at the bottom.

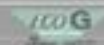
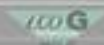
Circle wide fit-on-site installation to provide
The mounting fitting for the outdoor unit have been changed to front and back, so that the unit can be installed side by side with just 100 mm between units and reduction of the installation space has been realized.

Smallest installation space in the industry! Further reduction of the operating sound



The two DC inverter types have 8 HP to 16 HP have been unified to the same outer dimensions by using a two-room construction with the compressor and other structural parts at the lower room of the outdoor unit and the heat exchanger of the upper room of the outdoor unit. In this way, the smallest installation space in the industry and low operating sound have been realized.

**Variable Refrigerant Flow
Gas Heat Pump 2 way**



Gas Heat Pump 3 way

SGP-E70K1GU2 • SGP-E90K1GU2 • SGP-E120K1GU2W
SGP-E150K1GU2W • SGP-E190K1GU2W • SGP-E240K1GU2W

Power Range from 22.4 kW to 71 kW



SGP-E_GU2 SGP-E_GU2W

- Prevent global warming (Lowers CO2 emission standard)
- Up to 40% reduction of nitrogen oxide (NOx) emission
- Reduced gas consumption
- Reduced Electric power consumption
- Outstanding durability for greater economical efficiency
- Outdoor unit has reduced noise and vibration

The Sanyo GHP uses HFC-type refrigerant and clean-burning natural gas for high-efficiency operation. Since it is designed to work with existing piping, the Sanyo GHP offers an easy way to machine that is economical to run and maintain.

ATK-R2P568G
ATK-R2P1608G

ACC-3WAY-AD



SGP-FZ190K1GLD

Sanyo 3-Way GMP is ideal for the following applications:

- Office buildings with different room temperatures due to the different amount of sunshine received
- Buildings with computer/business equipment rooms requiring year-round cooling

		I		II		III		IV		V		VI	
		SUP 4-1987-1992	SUP 1993-1998	SUP 4-1987-1992	SUP 1993-1998	SUP 4-1987-1992	SUP 1993-1998	SUP 4-1987-1992	SUP 1993-1998	SUP 4-1987-1992	SUP 1993-1998	SUP 4-1987-1992	SUP 1993-1998
Water users													
Quantity	1000 m ³	245	25.4	201	20.1	201	20.1	201	20.1	201	20.1	201	20.1
Intensity	1000 m ³ /ha	245	25.4	201	20.1	201	20.1	201	20.1	201	20.1	201	20.1
Technical													
Autonomy	1000 m ³ /ha	245	25.4	201	20.1	201	20.1	201	20.1	201	20.1	201	20.1
Non-Consumption													
Quantity	1000 m ³	245	25.4	201	20.1	201	20.1	201	20.1	201	20.1	201	20.1
Intensity	1000 m ³ /ha	245	25.4	201	20.1	201	20.1	201	20.1	201	20.1	201	20.1
Non-Consumption													
Quantity	1000 m ³	245	25.4	201	20.1	201	20.1	201	20.1	201	20.1	201	20.1
Intensity	1000 m ³ /ha	245	25.4	201	20.1	201	20.1	201	20.1	201	20.1	201	20.1
Non-Consumption													
Quantity	1000 m ³	245	25.4	201	20.1	201	20.1	201	20.1	201	20.1	201	20.1
Intensity	1000 m ³ /ha	245	25.4	201	20.1	201	20.1	201	20.1	201	20.1	201	20.1
Non-Consumption													
Quantity	1000 m ³	245	25.4	201	20.1	201	20.1	201	20.1	201	20.1	201	20.1
Intensity	1000 m ³ /ha	245	25.4	201	20.1	201	20.1	201	20.1	201	20.1	201	20.1
Non-Consumption													
Quantity	1000 m ³	245	25.4	201	20.1	201	20.1	201	20.1	201	20.1	201	20.1
Intensity	1000 m ³ /ha	245	25.4	201	20.1	201	20.1	201	20.1	201	20.1	201	20.1
Non-Consumption													
Quantity	1000 m ³	245	25.4	201	20.1	201	20.1	201	20.1	201	20.1	201	20.1
Intensity	1000 m ³ /ha	245	25.4	201	20.1	201	20.1	201	20.1	201	20.1	201	20.1
Non-Consumption													
Quantity	1000 m ³	245	25.4	201	20.1	201	20.1	201	20.1	201	20.1	201	20.1
Intensity	1000 m ³ /ha	245	25.4	201	20.1	201	20.1	201	20.1	201	20.1	201	20.1
Non-Consumption													
Quantity	1000 m ³	245	25.4	201	20.1	201	20.1	201	20.1	201	20.1	201	20.1
Intensity	1000 m ³ /ha	245	25.4	201	20.1	201	20.1	201	20.1	201	20.1	201	20.1
Non-Consumption													
Quantity	1000 m ³	245	25.4	201	20.1	201	20.1	201	20.1				

* All are a 100% American-made product. High quality at great value, and made from recycled.

^aQualifications: master's or stronger; graduate course

[illegible]

Storage conditions:
 Cooling: indoor at temperature 22°C, 50%RH; 600; Outdoor at temperature 30°C, 60%RH; 600
 Heating: indoor at temperature 22°C, 50%RH; 600; Outdoor at temperature 7°C, 60%RH; 600

Estimate per 6.3 mm	Mean area	Estimate monthly, after prod.
for small cells	0.75 (0.000)	+0.000
	0.75 (0.000)	0.000
	0.75 (0.000)	0.000
for small cells	0.75 (0.000)	0.000
	0.75 (0.000)	0.000
	0.75 (0.000)	0.000



Measurement	Units	Typical Values
Body weight	kg	70 (50-100)
Heart rate at rest and at maximal	beats/min	70-80, 150-180
Stroke volume	ml	70-100
Cardiac output	l/min	5-6
Stroke work	J	100-150
Stroke power	W	100-150
Stroke efficiency	%	20-25
Stroke volume index	ml/m ²	100-120
Stroke work index	J/m ²	100-150
Stroke power index	W/m ²	100-150
Stroke efficiency index	%	20-25
Stroke volume reserve	ml	100-150
Stroke work reserve	J	100-150
Stroke power reserve	W	100-150
Stroke efficiency reserve	%	20-25
Stroke volume reserve index	ml/m ²	100-120
Stroke work reserve index	J/m ²	100-150
Stroke power reserve index	W/m ²	100-150
Stroke efficiency reserve index	%	20-25

- ² In the case of a non-integer number of iterations indicated in last line (see Table 2), different non-integer value represents time of reaching a point from right side to next line (see Table 2).

[illegible]

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SPW-XDR74GXH56 • SPW-XDR94GXH56 • SPW-XDR124GXH56
SPW-XDR164GXH56 • SPW-XDR184GXH56 • SPW-XDR254GXH56
SPW-XDR364GXH56 • SPW-XDR454GXH56 • SPW-XDR604GXH56

Power Range from 2.2 kW to 16.0 kW

Model No.	Indoor Unit	SPW-XDR74GXH56		SPW-XDR94GXH56		SPW-XDR124GXH56		SPW-XDR164GXH56		SPW-XDR184GXH56		SPW-XDR254GXH56		SPW-XDR364GXH56		SPW-XDR454GXH56		SPW-XDR604GXH56	
		Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating
Capacity	kW	2.2	3.0	2.9	3.5	3.5	4.5	4.5	5.5	5.5	6.5	6.5	8.0	8.0	10.0	10.0	12.0	12.0	16.0
Refrigerant	kg	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Electrical Rating																			
Power Supply	V	1 phase/220V	1 phase/220V	1 phase/220V	1 phase/220V	1 phase/220V	1 phase/220V	1 phase/220V	1 phase/220V	1 phase/220V	1 phase/220V	1 phase/220V	1 phase/220V	1 phase/220V	1 phase/220V	1 phase/220V	1 phase/220V	1 phase/220V	1 phase/220V
Energy Rating	SEER	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
Running current	A	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Power loss	W	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Features																			
Room control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Thermostat control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Net Wt. (incl. piping)	kg	6.0 (5.5/12.7/12.7)	6.0 (5.5/12.7/12.7)	6.0 (5.5/12.7/12.7)	6.0 (5.5/12.7/12.7)	6.0 (5.5/12.7/12.7)	6.0 (5.5/12.7/12.7)	6.0 (5.5/12.7/12.7)	6.0 (5.5/12.7/12.7)	6.0 (5.5/12.7/12.7)	6.0 (5.5/12.7/12.7)	6.0 (5.5/12.7/12.7)	6.0 (5.5/12.7/12.7)	6.0 (5.5/12.7/12.7)	6.0 (5.5/12.7/12.7)	6.0 (5.5/12.7/12.7)	6.0 (5.5/12.7/12.7)	6.0 (5.5/12.7/12.7)	6.0 (5.5/12.7/12.7)
Dimensions & Weight																			
Room size	m ²	30 ~ 40	30 ~ 40	30 ~ 40	30 ~ 40	30 ~ 40	30 ~ 40	30 ~ 40	30 ~ 40	30 ~ 40	30 ~ 40	30 ~ 40	30 ~ 40	30 ~ 40	30 ~ 40	30 ~ 40	30 ~ 40	30 ~ 40	30 ~ 40
Net weight (incl. pipe)	kg	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
Room Wt.	kg	20 ~ 200	20 ~ 200	20 ~ 200	20 ~ 200	20 ~ 200	20 ~ 200	20 ~ 200	20 ~ 200	20 ~ 200	20 ~ 200	20 ~ 200	20 ~ 200	20 ~ 200	20 ~ 200	20 ~ 200	20 ~ 200	20 ~ 200	20 ~ 200
Room height	m	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5

Specification subject to change without notice

Model No.	Indoor Unit	SPW-XDR74GXH56		SPW-XDR94GXH56		SPW-XDR124GXH56		SPW-XDR164GXH56		SPW-XDR184GXH56		SPW-XDR254GXH56		SPW-XDR364GXH56		SPW-XDR454GXH56		SPW-XDR604GXH56	
		Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating
Capacity	kW	2.2	3.0	2.9	3.5	3.5	4.5	4.5	5.5	5.5	6.5	6.5	8.0	8.0	10.0	10.0	12.0	12.0	16.0
Refrigerant	kg	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Electrical Rating																			
Power Supply	V	1 phase/220V	1 phase/220V	1 phase/220V	1 phase/220V	1 phase/220V	1 phase/220V	1 phase/220V	1 phase/220V	1 phase/220V	1 phase/220V	1 phase/220V	1 phase/220V	1 phase/220V	1 phase/220V	1 phase/220V	1 phase/220V	1 phase/220V	1 phase/220V
Energy Rating	SEER	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
Running current	A	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Power loss	W	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Features																			
Room control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Thermostat control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Net Wt. (incl. piping)	kg	6.0 (5.5/12.7/12.7)	6.0 (5.5/12.7/12.7)	6.0 (5.5/12.7/12.7)	6.0 (5.5/12.7/12.7)	6.0 (5.5/12.7/12.7)	6.0 (5.5/12.7/12.7)	6.0 (5.5/12.7/12.7)	6.0 (5.5/12.7/12.7)	6.0 (5.5/12.7/12.7)	6.0 (5.5/12.7/12.7)	6.0 (5.5/12.7/12.7)	6.0 (5.5/12.7/12.7)	6.0 (5.5/12.7/12.7)	6.0 (5.5/12.7/12.7)	6.0 (5.5/12.7/12.7)	6.0 (5.5/12.7/12.7)	6.0 (5.5/12.7/12.7)	6.0 (5.5/12.7/12.7)
Dimensions & Weight																			
Room size	m ²	30 ~ 40	30 ~ 40	30 ~ 40	30 ~ 40	30 ~ 40	30 ~ 40	30 ~ 40	30 ~ 40	30 ~ 40	30 ~ 40	30 ~ 40	30 ~ 40	30 ~ 40	30 ~ 40	30 ~ 40	30 ~ 40	30 ~ 40	30 ~ 40
Net weight (incl. pipe)	kg	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
Room Wt.	kg	20 ~ 200	20 ~ 200	20 ~ 200	20 ~ 200	20 ~ 200	20 ~ 200	20 ~ 200	20 ~ 200	20 ~ 200	20 ~ 200	20 ~ 200	20 ~ 200	20 ~ 200	20 ~ 200	20 ~ 200	20 ~ 200	20 ~ 200	20 ~ 200
Room height	m	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5

Specification subject to change without notice

Rating conditions
Cooling indoor air temperature 27°C (80°F) DB, outdoor air temperature 35°C (95°F) DB
Heating indoor air temperature 20°C (68°F) DB, outdoor air temperature 7°C (45°F) DB



Wired with line



Wireless



Smartphone



RC 28000 (Standard remote unit) RC 45000

Option remote controller

Panel



FW-XDR454GXH56



SPW-XDR...GXH56(B)

Air intake chamber



CMB-FS140AQ +
CMB-GS140AQ
(optional)

- Brocco fans and heat exchanger fins with new shapes are adopted and the operating sound could be reduced by max 5 dB (A)
- Wide reduction of the power consumption by adoption of newly developed DC fan motors with variable speed, new heat exchangers
- Easy fine adjustment of the body suspension height
- Discharge opening and flap with new shape
- Light, thin and attractive design with easy installation
- A drain height of approximately 85 cm from the ceiling surface
- Easy servicing of the drain pan

Variable Refrigerant Flow

Semi Concealed 4-way air discharge

SPW-XMR74EXH56 • SPW-XMR94EXH56 • SPW-XMR124EXH56
SPW-XMR164EXH56 • SPW-XMR184EXH56

Power Range from 2.2 kW to 5.6 kW



Option remote controller

Panel



SPW-XMR...EXH56(B)

- New dimensions 80 x 60 cm suitable for European undercasing standards
- Three-speed centrifugal fan
- Anti-mould and anti-bacteria washable filters
- Low operating sound
- Night set back capability

Indoor units

Semi Concealed 2-way air discharge

SPW-SR74GXH56 • SPW-SR94GXH56 • SPW-SR124GXH56
SPW-SR164GXH56 • SPW-SR184GXH56 • SPW-SR254GXH56

Power Range from 2.2 kW to 7.3 kW



Option remote controller

Panel



SPW-SR...GXH56(B)

- Realization of thin, compact and light units
- Silent design
- Realization of must suitable air flow for heating and cooling
- Excellent installation performance
- Adoption of a power up-down pump
- Simple maintenance

Model No.	Indoor unit	SPW-XMR74EXH56		SPW-XMR94EXH56		SPW-XMR124EXH56		SPW-XMR164EXH56		SPW-XMR184EXH56	
		Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating
Capacity	kg/h	2.2	2.2	2.8	2.8	3.6	3.6	4.5	4.5	5.6	5.6
Refrigerant	kg	0.25	0.25	0.32	0.32	0.40	0.40	0.50	0.50	0.63	0.63
Electrical Rating											
Power (Watt)		1,000	1,000	1,200	1,200	1,500	1,500	1,800	1,800	2,200	2,200
Input power (Watt)		1,000	1,000	1,200	1,200	1,500	1,500	1,800	1,800	2,200	2,200
Running current (A)		4.5	4.5	5.4	5.4	6.8	6.8	8.1	8.1	9.9	9.9
Power supply		220-240V	220-240V	220-240V	220-240V	220-240V	220-240V	220-240V	220-240V	220-240V	220-240V
Power supply		50	50	50	50	50	50	50	50	50	50
Dimensions & Weight											
Power supply box	Indoor unit	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120
Power supply box	Indoor unit	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120
Power supply box	Indoor unit	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120
Indoor unit (WxHxD)	mm	80x60x120	80x60x120	80x60x120	80x60x120	80x60x120	80x60x120	80x60x120	80x60x120	80x60x120	80x60x120
Net weight (kg)		4.5	4.5	5.4	5.4	6.8	6.8	8.1	8.1	9.9	9.9
Gross weight		4.5	4.5	5.4	5.4	6.8	6.8	8.1	8.1	9.9	9.9

Operating conditions
Cooling: Indoor air temperature 27°C DB/19°C WB, Outdoor air temperature 35°C DB/27°C WB
Heating: Indoor air temperature 20°C DB, Outdoor air temperature 7°C DB/-7°C WB

Model No.	Indoor unit	SPW-SR74GXH56		SPW-SR94GXH56		SPW-SR124GXH56		SPW-SR164GXH56		SPW-SR184GXH56		SPW-SR254GXH56	
		Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating
Capacity	kg/h	2.2	2.2	2.8	2.8	3.6	3.6	4.5	4.5	5.6	5.6	7.3	7.3
Refrigerant	kg	0.25	0.25	0.32	0.32	0.40	0.40	0.50	0.50	0.63	0.63	0.78	0.78
Electrical Rating													
Power (Watt)		1,000	1,000	1,200	1,200	1,500	1,500	1,800	1,800	2,200	2,200	2,800	2,800
Input power (Watt)		1,000	1,000	1,200	1,200	1,500	1,500	1,800	1,800	2,200	2,200	2,800	2,800
Running current (A)		4.5	4.5	5.4	5.4	6.8	6.8	8.1	8.1	9.9	9.9	12.5	12.5
Power supply		220-240V	220-240V	220-240V	220-240V	220-240V	220-240V	220-240V	220-240V	220-240V	220-240V	220-240V	220-240V
Power supply		50	50	50	50	50	50	50	50	50	50	50	50
Dimensions & Weight													
Power supply box	Indoor unit	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120
Power supply box	Indoor unit	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120
Power supply box	Indoor unit	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120	220x120x120
Indoor unit (WxHxD)	mm	80x60x120	80x60x120	80x60x120	80x60x120	80x60x120	80x60x120	80x60x120	80x60x120	80x60x120	80x60x120	80x60x120	80x60x120
Net weight (kg)		4.5	4.5	5.4	5.4	6.8	6.8	8.1	8.1	9.9	9.9	12.5	12.5
Gross weight		4.5	4.5	5.4	5.4	6.8	6.8	8.1	8.1	9.9	9.9	12.5	12.5

Operating conditions
Cooling: Indoor air temperature 27°C DB/19°C WB, Outdoor air temperature 35°C DB/27°C WB
Heating: Indoor air temperature 20°C DB, Outdoor air temperature 7°C DB/-7°C WB

Variable Refrigerant Flow

Semi Concealed 1-way air discharge

SPW-ADR74GXH56 • SPW-ADR94GXH56 • SPW-ADR124GXH56

Power Range from 2.2 kW to 3.5 kW



Option remote controller

Panel



PWR-AD124GXH56



SPW-ADR...GXH56(B)

- New development concept: low Sound, Light Weight and Compact
- Ideal for hotel and hospital applications
- Drain pump features 800mm height
- Ultra-light design: only 11kg for class 9 and class 12
- Automatic flap movement ensures optimum air distribution and ceiling protection
- Long life filter included
- Three-speed centrifugal fan by wired or wireless remote controller

Indoor units

Semi Concealed Slim 1-way air discharge

SPW-LDR94GXH56 • SPW-LDR124GXH56
SPW-LDR164GXH56 • SPW-LDR184GXH56
SPW-LDR254GXH56

Power Range from 2.2 kW to 7.3 kW



Option remote controller

Panel



PWR-LD254GXH56



SPW-LDR...GXH56(B)

- Industry high capacity to handle ceiling heights up to 4.2m
- Lightweight, compact and quiet
- 3 types of air-blow (down, down-front, front-only)
- Smudge-free operation
- The hanging height of the unit can be easily adjusted
- Automatic flap movement ensures optimum air distribution
- Drain pump features 800 mm height
- Three-speed centrifugal fan by wired or wireless remote controller

Performance	Index 100	SPW-ADR74GXH56		SPW-ADR94GXH56		SPW-ADR124GXH56	
		Cooling	Heating	Cooling	Heating	Cooling	Heating
Capacity	40	2.20	2.20	2.20	2.20	2.20	2.20
Performance	High air flow						
Technical Rating							
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Energy (kWh)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Features							
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)		1.20 (1.20-1.40)		1.20 (1.20-1.40)		1.20 (1.20-1.40)	
Power (kW)	</						

SPW-UR74GXH56 • SPW-UR94GXH56 • SPW-UR124GXH56
SPW-UR164GXH56 • SPW-UR184GXH56 • SPW-UR254GXH56
SPW-UR364GXH56 • SPW-UR484GXH56

Power Range from 2.2 kW to 14.0 kW

Model No.	Indoor unit	SPW-UR74GXH56	SPW-UR94GXH56	SPW-UR124GXH56	SPW-UR164GXH56	SPW-UR184GXH56	SPW-UR254GXH56	SPW-UR364GXH56	SPW-UR484GXH56
Performance		Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating
Capacity	kW	7.4	9.4	12.4	16.4	18.4	25.4	36.4	48.4
APF (A/C)		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
SEER (A/C)		12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
SCOP (H/C)		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Power supply	V	220-240	220-240	220-240	220-240	220-240	220-240	220-240	220-240
Refrigerant		R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Max. length	m	30	30	30	30	30	30	30	30
Max. height	m	10	10	10	10	10	10	10	10
Max. weight	kg	15	15	15	15	15	15	15	15

See Model card for more details.

Model No.	Indoor unit	SPW-UR74GXH56	SPW-UR94GXH56	SPW-UR124GXH56	SPW-UR164GXH56	SPW-UR184GXH56	SPW-UR254GXH56	SPW-UR364GXH56	SPW-UR484GXH56
Performance		Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating
Capacity	kW	7.4	9.4	12.4	16.4	18.4	25.4	36.4	48.4
APF (A/C)		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
SEER (A/C)		12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
SCOP (H/C)		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Power supply	V	220-240	220-240	220-240	220-240	220-240	220-240	220-240	220-240
Refrigerant		R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Max. length	m	30	30	30	30	30	30	30	30
Max. height	m	10	10	10	10	10	10	10	10
Max. weight	kg	15	15	15	15	15	15	15	15

See Model card for more details.

Operating conditions
Cooling: Indoor air temperature 27°C, DB/19°C WB; Outdoor air temperature 35°C DB/19°C WB
Heating: Indoor air temperature 20°C; Outdoor air temperature 7°C DB/1°C WB



- Realized comfortable ambient by dispersed arrangement of discharge ports
- The static pressure outside the unit can be increased using a booster cable
- Discharge duct adapter flange included (2 ø 200 for sizes 74-184, 3 ø 200 for size 254, 4 ø 200 for sizes 364, 484)
- Drain pump with increased power
- Easy maintenance by outer installation of electric equipment box
- Unified body height of approximately 31 cm for all models

Indoor units
Concealed duct

SPW-UMR74EXH56 • SPW-UMR94EXH56 • SPW-UMR124EXH56
SPW-UMR164EXH56 • SPW-UMR184EXH56 • SPW-UMR224EXH56

Power Range from 2.2 kW to 6.4 kW



SPW.FUR EXH56B

- Integrated pump for condensate discharge
- Fresh air intake
- Reduced dimensions
- Anti-mould and anti-bacteria washable filters
- Three-speed centrifugal fan by remote control and feature to increase speed/pressure, using the booster ratio
- Night set back capability

[illegible]

Rating conditions

Variable Refrigerant Flow Wall Mounted

SPW-KR74GXH56 • SPW-KR94GXH56 • SPW-KR124GXH56
SPW-KR164GXH56 • SPW-KR184GXH56 • SPW-KR254GXH56

Power Range from 2.2 kW to 7.3 kW



Option remote controller



SPW-KR...GXH56(B)

- Closed air discharge ports, when operation is stopped the flap closes completely to prevent the entry of dust and to keep the unit clean
- Lighter and small units make the installation easy
- Silent design
- Smart colour and round-shape design with horizontal stripes
- Piping outlet in three directions
- Anti-mould filters are standard equipment
- Washable front panel
- Optional external electronic expansion valve kit ADX-SUPK160AGB prevent noise in hotel rooms and bed rooms

Performance	Indoor unit	SPW-KR74GXH56		SPW-KR94GXH56		SPW-KR124GXH56		SPW-KR164GXH56		SPW-KR184GXH56		SPW-KR254GXH56	
		Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating
Capacity	kg/h	2.2	2.5	2.8	3.2	3.5	4.0	4.5	5.0	5.5	6.3	7.0	8.0
Refrigerant		R410A											
Electrical Rating													
Power (Watts)		1,200/1,200		1,300/1,300		1,500/1,500		1,800/1,800		2,100/2,100		2,400/2,400	
Energy (kWh)		0.15		0.15		0.15		0.15		0.15		0.15	
Power (kW)		0.15		0.15		0.15		0.15		0.15		0.15	
Dimensions & Weight													
Power cord length	mm	1,000/1,000		1,000/1,000		1,000/1,000		1,000/1,000		1,000/1,000		1,000/1,000	
Power cord length	mm	1,000/1,000		1,000/1,000		1,000/1,000		1,000/1,000		1,000/1,000		1,000/1,000	
Net weight (kg)		2.2		2.5		2.8		3.2		3.5		4.0	
Gross weight (kg)		2.5		2.8		3.2		3.5		4.0		4.5	

Specifications subject to change without notice

Rating conditions
Cooling: Indoor air temperature 27°C (81°F), 50% humidity at temperature 27°C (81°F) / 19°C (66°F)
Heating: Indoor air temperature 20°C (68°F), 50% humidity at temperature 27°C (81°F) / 19°C (66°F)

Indoor units Floor and floor/ceiling

SPW-FTR74EXH56 • SPW-FTR94EXH56 • SPW-FTR124EXH56
SPW-FTR164EXH56 • SPW-FTR184EXH56 • SPW-FTR224EXH56

Power Range from 2.2 kW to 6.1 kW



Option remote controller



SPW-FTR...EXH56(B)

- Three-speed centrifugal fan
- Anti-mould and anti-bacteria washable filters
- Low operating sound
- Night set back capability
- Infrared remote control with 24h digital timer and full features control and horizontal flap swinging or set on a fixed position





Performance	Indoor unit	SPW-FTR74EXH56		SPW-FTR94EXH56		SPW-FTR124EXH56		SPW-FTR164EXH56		SPW-FTR184EXH56		SPW-FTR224EXH56	
		Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating
Capacity	kg/h	2.2	2.5	2.8	3.2	3.5	4.0	4.5	5.0	5.5	6.3	7.0	8.0
Refrigerant		R410A											
Electrical Rating		220V-240V, 50/60Hz											
Power (Watts)		1,200/1,200		1,300/1,300		1,500/1,500		1,800/1,800		2,100/2,100		2,400/2,400	
Energy (kWh)		0.15		0.15		0.15		0.15		0.15		0.15	
Power (kW)		0.15		0.15		0.15		0.15		0.15		0.15	
Dimensions		220x220x220 (mm)											
Power cord length	mm	1,000/1,000		1,000/1,000		1,000/1,000		1,000/1,000		1,000/1,000		1,000/1,000	
Power cord length	mm	1,000/1,000		1,000/1,000		1,000/1,000		1,000/1,000		1,000/1,000		1,000/1,000	
Net weight (kg)		2.2		2.5		2.8		3.2		3.5		4.0	
Gross weight (kg)		2.5		2.8		3.2		3.5		4.0		4.5	

220 ~ 240 V, 50/60 Hz

Specifications subject to change without notice


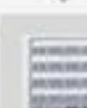


Rating conditions
Cooling: Indoor air temperature 27°C (81°F), 50% humidity at temperature 27°C (81°F) / 19°C (66°F)
Heating: Indoor air temperature 20°C (68°F), 50% humidity at temperature 27°C (81°F) / 19°C (66°F)

Sanyo control equipment meets the needs of variety of customers

Operation system	Individual control system			Timer operation
Basic	Normal operation	Operation from each unit	Quick and easy operation	Daily and weekly program
External appearance				
Typ. model name	Timer remote control RCS-700000	Wireless remote control RCS-700000-MU (J) RCS-700000-MU (J) RCS-700000-MU (J) RCS-700000-MU (J) RCS-700000-MU (J)	Simplified remote control RCS-400000	Schedule timer SMA-700000
N. of air units which can be controlled	1 group, 8 units	1 group, 8 units	1 group, 8 units	64 groups, max. 512 units
Limitation of use	• Up to 2 units can be connected per group	• Up to 2 units can be connected per group	• Up to 2 units can be connected per group	• Power supply from the system controller • In case of air system controller possibility of connection to the T10 terminal of an indoor unit
Connectable indoor unit	4 series indoor unit	4 series indoor unit	4 series indoor unit	2 series indoor unit 4 series indoor unit

Functions	ON/OFF	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	---
	Mode setting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	---
	Fan speed setting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	---
	Temperature setting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	---
	Air flow direction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	---
	Removal/return switching	---	---	---	---
	Weekly program	<input type="radio"/>	---	---	<input type="radio"/>

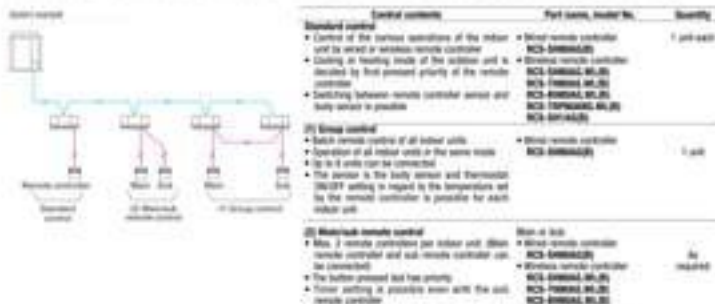
---: Cannot be performed. "Up grade": To be performed. "Communication": Not "New type".

Operation system	Centralized control system			
Basic	Operation with different functions from center station	Daily ON/OFF operation from center station	Simplified charge ratio for each brand	
			Touch screen panel	Personal computer (Web master)
External appearance				
Typ. model name	System controller SMA-400000	ON/OFF controller SMA-400000	Intelligent controller SMA-400000	Communication adapter SMA-400000
N. of air units which can be controlled	64 groups, max. 512 units	16 groups, max. 64 units	64 units x 4 systems, max. 256 units	2 systems, max. 128 units
Use limitation	• Up to 16 units can be connected to one system • Main unit and 11 slave unit = 1 set unit connection is possible • Use without remote controller is possible	• Up to 8 units (4 main units + 4 sub units) can be connected to one system • Use without remote controller is impossible	• A communication adapter (SMA-400000) must be installed for three or more systems	
Connectable indoor unit	2 series indoor unit 4 series indoor unit	2 series indoor unit 4 series indoor unit	2 series indoor unit 4 series indoor unit	2 series indoor unit 4 series indoor unit

Functions	ON/OFF	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Mode setting	<input type="radio"/>	---	<input type="radio"/>	<input type="radio"/>
	Fan speed setting	<input type="radio"/>	---	<input type="radio"/>	<input type="radio"/>
	Temperature setting	<input type="radio"/>	---	<input type="radio"/>	<input type="radio"/>
	Air flow direction	<input type="radio"/>	---	<input type="radio"/>	<input type="radio"/>
	Removal/return switching	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Weekly program	---	---	<input type="radio"/>	<input type="radio"/>

---: Cannot be performed. "Up grade": To be performed. "Communication": Not "New type".

Remote controller (Wired remote controller/Wireless remote controller)



Timer remote controller RCS-TM00BG

New



- Basic remote controller ON/OFF
- Operation mode changeover (Cooling, Heating, Dry, Auto, Fan)
- Temperature setting (Cooling/Dry: 16-30 deg heating: 16-30 deg)
- Air volume adjustment (W: 1/2, Auto)
- Air flow direction adjustment
- Time Function
 - 24-hour real time clock
 - Day of the week indicator
- Memory Program Function
 - A maximum of 8 actions can be programmed per day
- Cooling Function
 - This function can prevent the room temperature from dropping or rising when the occupants are out for a long time
- Sleeping Function
 - This function controls the room temperature for comfortable sleeping
- Max. 2 indoor units can be controlled from one remote controller
- Remote control by main remote controller and sub-remote controller is possible
 - Max. 2 remote controllers (main remote controller and sub-remote controller) can be installed for one indoor unit

Wireless remote controller



- Verification independent operation is possible
- When commercial ventilation fans or heat exchanger ventilation fans have been installed, they can be operated with this remote control (interlocked operation with the indoor unit and air conditioning ventilation (ON/OFF))
- Easy installation for the 3-way conversion type simply by replacing the cover part
- Timer setting is up to 72 hours (in every 30 minutes)
- Remote control by main remote controller and sub-remote controller is possible
 - Max. 2 remote controllers (main remote controller and sub-remote controller) can be installed for one indoor unit
- Up to 4 indoor units can be controlled by 1 indoor unit and 4 indoor units and 4 indoor units
- When RCS-08000AG(B) is used, wireless control becomes possible for all indoor units
 - When a remote remote is set up to a different room, control from that room also becomes possible
- Automatic operation by means of the emergency operation button is possible even when the remote controller has been lost or the batteries have been exhausted
- In addition, there are other functions like temperature setting, operation switching, wind direction/fan speed setting, and so on

Simplified remote controller RCS-KR1AG(B)



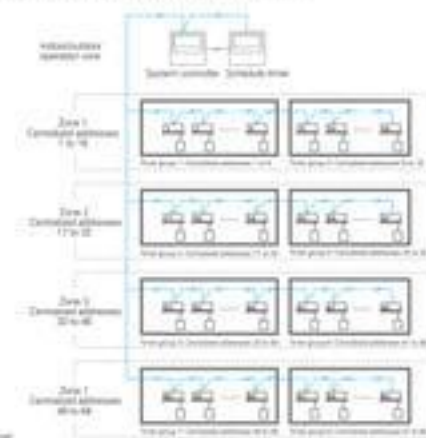
- A remote controller with simple functions and basic operation
- Suitable for open rooms or hotels where detailed functions are not required
- On/Off, operation mode switching, temperature setting, wind speed switching, wind direction setting, sleep display and remote control will display can be performed
- Switch group control for up to 8 indoor units
- Remote control by main remote controller and sub-remote controller is possible with a simplified remote controller or a wired remote controller (up to two units)

Schedule timer SHA-TM04AG(B)

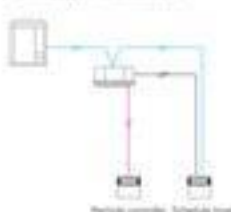


- In operation mode and temperature settings are not possible with the schedule timer 2 (outlet unit) together with a remote controller, a system controller or independent controller (also being set possible with a 3.5mm pin base an address setting function, the control function of a system controller and/or an outlet unit for wireless setting and so on)
- Up to 64 groups (max. 64 indoor units) can be controlled divided into 8 time groups
- Its program operation (Operation/Stop/Local permission/Local prohibition) per day can be set in a program for one week
- This operation or stops, remote controller local permission or remote controller local prohibition and their respective combinations are possible (Operation + local permission, stop + local permission, only local permission, etc.)
- Local prohibition and the combination of the three forms of temperature setting, mode change and speedswitching can be set at the time of installation
- A function for pausing the timer in case of national holidays has been added and timer operation also can be stopped for a long time
- By setting holidays or operation stop within one week, the timer can be paused only during that week
- All timer settings can be stopped with the timer "ON/OFF" button (return to timer operation is made by pressing the button again)

Connection example 2 (power supply from the control unit)



Connection example 1 (power supply from the indoor unit)



System controller SHA-KC64AG(B)



Dimensions in mm
150 (W) x 120 (H) x 30 (mounting bracket)

- * Power supply AC 100 to 240V
- * VCCF Remote reset effective voltage: AC 100 to 240V 50/60Hz
- * Remote reset voltage free contact at 240V (50/60Hz) internal power supply within AC 240V
- * Total wiring length 10m

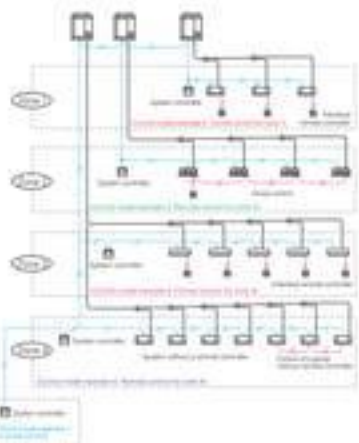
- Individual control is possible for max. 64 groups, 64 indoor units
- Control of 64 indoor units divided into 8 zones, each zone can have up to 16 groups and each group can have up to 8 units
- Control is possible for (ON/OFF) operation mode, fan speed, air flow direction only when used without a remote controller, operation monitoring, alarm monitoring, ventilation, remote controller local operation prohibition and so on.

Individual	All operations are possible also from the remote controller. However, the contents will be changed to suit operation but the contents of the controller.
Control 1	The remote controller cannot be used for (ON/OFF) and other operations are possible from the remote controller.
Control 2	The remote controller cannot be used for (ON/OFF), mode change and temperature setting and other operations are possible from the remote controller.
Control 3	The remote controller cannot be used for mode change or temperature setting change and other operations are possible from the remote controller.
Control 4	The remote controller cannot be used for operation mode change and other operations are possible from the remote controller.

- Just use with a remote controller as intelligent controller, a schedule timer and as an in possible (The maximum number of permissible system controllers is 10, including other central controllers on the same circuit).
- In case of just use with a wireless remote controller, there are limitations for the control mode. Please see only with "Individual" and "Control 1".

- Control of systems without a remote controller and of multi-task systems (a total of up to two units) is possible.

Connection example



Control mode	Operation mode	
	Control control mode	Remote control mode
All mode	On control (power) (Fan speed)	On control (power)
Zone 1 mode	On control (power) (Fan speed)	On control (power)
Zone 2 mode	On control (power) (Fan speed)	On control (power)
Zone 3 mode	On control (power) (Fan speed)	On control (power)
Zone 4 mode	On control (power) (Fan speed)	On control (power)

Touch panel



Dimensions in mm
200 (W) x 100 (H) x 10 (D)

- * Power supply AC 100 to 240V (50/60Hz), 20W
- * VCCF Remote reset effective voltage: AC 100 to 240V 50/60Hz
- * Remote reset voltage free contact at 240V (50/60Hz) internal power supply within AC 240V
- * Total wiring length 10m for each system
- * Only for connecting to the panel

Limitation contents for prohibited operation

- Prohibition means limitation of the operation contents from the remote controller. It is also possible to change the prohibition items.

Individual	There is no limitation to the operation of the remote controller. However, the contents will be changed with operation but to the contents of the controller. (e.g. prohibition of setting)
Prohibition 1	The remote controller cannot be used for (ON/OFF) and other operations are possible from the remote controller.
Prohibition 2	The remote controller cannot be used for (ON/OFF) operation mode change and temperature setting and other operations are possible from the remote controller.
Prohibition 3	The remote controller cannot be used for operation mode change and temperature setting and other operations are possible from the remote controller.
Prohibition 4	The remote controller cannot be used for operation mode change and other operations are possible from the remote controller.

Note: Actual part unit of the BPF system and the intelligent controller in the same communication operation line.



Dimensions in mm
200 (W) x 100 (H) x 10 (D)

- * Power supply AC 100 to 240V (50/60Hz), 10W
- * Remote reset effective voltage: AC 100 to 240V 50/60Hz

Intelligent controller SHA-KT256AG(B)

- Max. 256 indoor units (4 systems x 64 units) can be controlled. In case of three or more systems, a communication adaptor (SHA-KA128AG) must be included on the outdoor.

- Operation is possible as batch, in zone units, in lowest units and in group units.

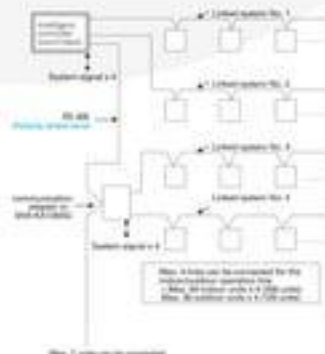
- (ON/OFF), operation mode setting, temperature setting, fan speed setting, air flow direction setting (when used without a remote controller) and remote controller local operation prohibition (prohibition 1, 2, 3, 4) can be done.

- A system without a remote controller is possible, just use with a remote controller or a system controller and an air filter is possible.

- Use of a schedule timer and holiday setting also can be done.

- Proportional distribution of the air-conditioning energy is possible.

- In case of just use with a wireless remote control panel, there are limitations for the control mode. Please see only with "Individual" and "Control 1".



Communication adaptor RCS-KA128AG(B)

- Required to connect three or more linked wiring systems (indoor/outdoor operation lines) to the intelligent controller.

- Also required for connection of the BPF software.

* See user manual, please refer to page 34.

- Two linked wiring systems can be connected by one SHA-KA128AG but max. 4 systems can be connected for the entire intelligent controllers.

* In the case of all-wired control system, it must be installed indoors or in the control room only.

ON/OFF controller SHA-KC16KAG(B)



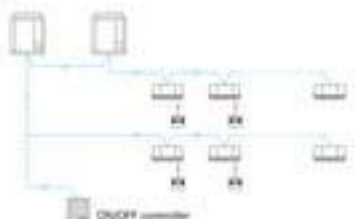
Dimension in mm
(W x H x D) (mm) (mm) (mm)

Power supply
AC 220V-240V
Nominal voltage for indoor unit
DC 24V, 0.1A (max)
Nominal voltage for outdoor unit
DC 24V, 0.1A (max)

- 16 groups of indoor units can be controlled
- Collective control and individual group (unit) control can also be performed
- Up to 8 ON/OFF controllers (4 lines, 4 sets) can be installed in one link system
- The operation status can be determined immediately

* An operation mode and temperature settings are not possible with the ON/OFF controller. It must be used together with a remote controller in a system controller.

System example



Remote sensor ART-K45AG(B)



- This is a remote sensor which can be used with 4 series indoor unit. Please use it to detect the room temperature when a remote controller sensor or body sensor is used (correspondence to a system without a remote controller is possible)
- For joint use with a remote control switch, use the remote control switch as main remote controller

Signal output board ACC-SG-AG(B)



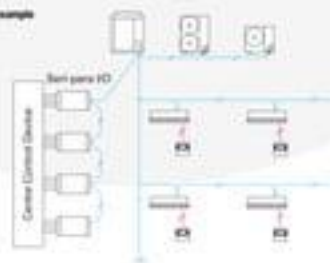
- Defrost, heating, cooling and thermostat (ON) signal can be put out to the outside
- Signal type (2 types) Voltage specification, low voltage specification



Seri-Para I/O Unit for 16 groups indoor unit ACC-SP16TAG(B)

- This unit can control up to 16 outdoor units
- From the center control device, mode changing and batch operation/ batch stop are possible
- This unit can control and monitor the status up to 16 groups of indoor units (plus 64 indoor units)
- Up to 4 seri-para units can be connected in one system
- From the center control device, it is possible to set the temperature and to monitor the room temperature or intake air temperature

System example



- Input
1. ON/OFF Pulse DC 24V
 2. Load position Continuous DC 24V
 3. Temp. setting Analog DC 1-5V
 4. AC/DC Pulse DC 24V
 5. Air flow position & Emergency stop Continuous DC 24V
- Output
1. Indoor/Outdoor fan fan stop
 2. Room temp. Analog DC 1-5V
 3. AC/DC Pulse

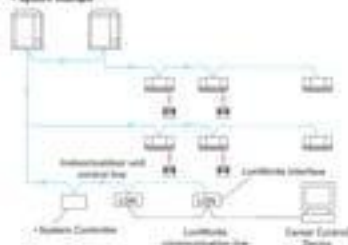


Lon Works Interface SHA-LN16UG(B)

- This interface is a communications converter for connecting LonWorks to the Sanyo air conditioner unit (PAC - GPF) control network
- From the host connected to LonWorks, basic settings and status monitoring is possible for up to 16 groups of A/C units

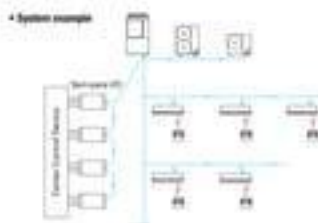
Functions		
A/C unit settings from the LonWorks communication	Settings for each group of indoor units	<ul style="list-style-type: none"> Defrost Temp. setting Operation mode Operation mode (Setpoint 1 setting) Operation mode (Setpoint 2 setting) Emergency stop
A/C unit status notifications made to the LonWorks communication	Setting for all units	<ul style="list-style-type: none"> Room stop Temp. setting Operation mode Operation mode (Setpoint 1 setting) Operation mode (Setpoint 2 setting) Room status Indoor units with active status Alarm temp. A/C unit status Temperature sensor setting Minimum limit setting Maximum limit setting
Configuration properties		<ul style="list-style-type: none"> Serial use of the following remote controller protocol, air-conditioning, air direction setting, etc. (not)

System example





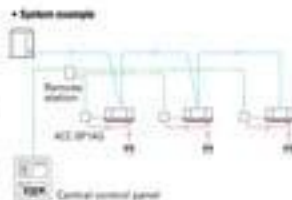
Seri-Para I/O unit for outdoor unit
ACC-XSP4U1G(8)



- | | Parameters in <code>test</code>
(<code>test = TRUE</code> or <code>FALSE</code>) |
|--|---|
| • <code>Power (approx)</code>
<code>test</code> | <p>large group: 70000 to 100000; 90 M</p> <p>smaller operations: <code>test = big</code> (big-integer, <code>test = big</code>) or <code>test = big</code> (big-integer)</p> <p>(locking/testing: <code>test = big</code> (big-integer, <code>test = big</code>))</p> <p>otherwise: <code>test = big</code> (big-integer, <code>test = big</code>)</p> <p>(locking/testing: <code>test = big</code> (big-integer, <code>test = big</code>))</p> |
| • <code>test</code> | <p>locking/testing: <code>test = big</code> (big-integer, <code>test = big</code>)</p> <p>otherwise: <code>test = big</code> (big-integer, <code>test = big</code>)</p> <p>(locking/testing: <code>test = big</code> (big-integer, <code>test = big</code>))</p> |
| • <code>test</code> | <p>locking/testing: <code>test = big</code> (big-integer, <code>test = big</code>)</p> <p>otherwise: <code>test = big</code> (big-integer, <code>test = big</code>)</p> <p>(locking/testing: <code>test = big</code> (big-integer, <code>test = big</code>))</p> |
| • <code>test</code> | <p>locking/testing: <code>test = big</code> (big-integer, <code>test = big</code>)</p> <p>otherwise: <code>test = big</code> (big-integer, <code>test = big</code>)</p> <p>(locking/testing: <code>test = big</code> (big-integer, <code>test = big</code>))</p> |

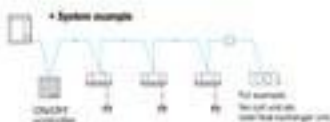


Seri-Para I/O unit for each indoor unit
ACC-SP1AG(B)

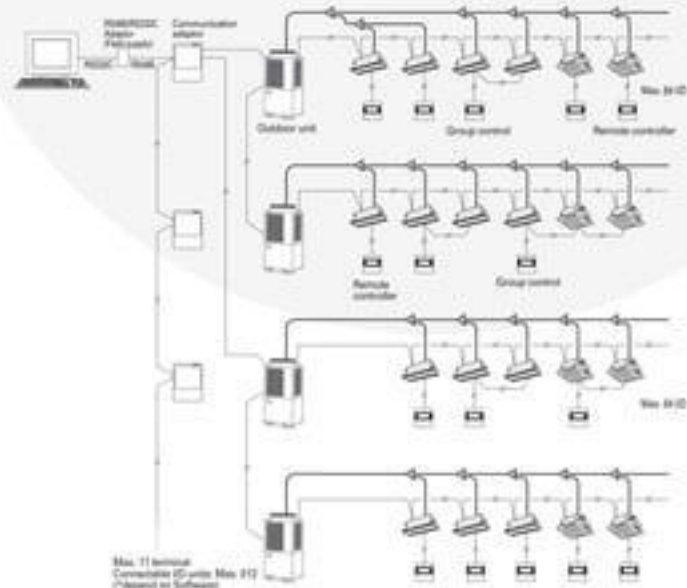


- Control and status monitoring is possible for individual inlets (7 groups)
- In addition to operation and stop, there is a digital input function for air speed, air direction, operation mode and demand
- Temperature setting and measurement of the inlets' surface temperature can be performed from central monitoring
- The analog input for temperature setting is 0 to 10 V
- Power is supplied from the 710 terminal of the inlets unit. Separate power supply also is possible (in case of surface temperature measurement)

Interface adaptor SHA-KL4UG(B)



- * This software (BSP) is an air conditioner control system for buildings. By using the adapter X2, Any adapter and the host, add up to 16 systems can be connected for a maximum of 512 indoor units.



Software environment

- | | |
|----------------|---|
| OS | Windows 2000
Windows NT 4.0 Service Pack 4
or above |
| Browser | Internet Explorer 4.0
or above |



^aWhat the first column is concerned with communication subjects, the getting of subject matter and communication considered to be correct.

Keywords:

All our settings

- Use 10000
- Slide change
- Room temperature setting
- Fan speed setting
- Flap setting
- Control panel setting
- Filter-rye Club
- Appl. vent

ALL units shipped

- Load (N)/IFT value
- Operation mode
- Settling temperature
- Fan speed status
- Trip status
- Control panel setting
- Filter-type selection
- (Form 3/Interconnect) status
- Alarm code
- Change setpoint mode



SANYO

SANYO Hydronic products
a year-round comfort air-conditioning in any
residential and commercial building

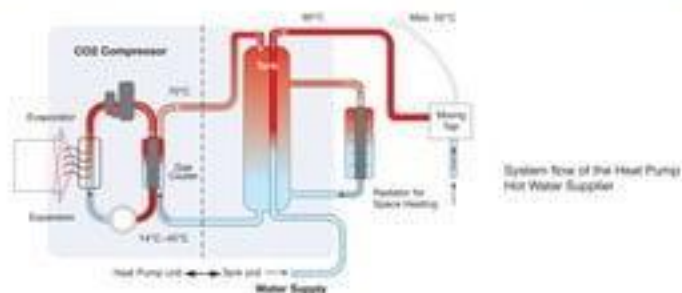
In the small and medium capacity range Sanyo offers a very large range of hydronic products to satisfy any Customer's demand and expectations. With CO₂ ECo Sanyo reviewed the physicality of CO₂ natural refrigerant and verified its good performance in cold climates and its advantage in application to water heaters for the refrigeration cycle. Air-to-water chillers and heat pumps with built-in hydronic system make installation quick and easy and reduce installation space. The elegant and compact design of the water terminal and fan-coil units ensure high performances and low noise level certified by Eurovent.

INDEX OF PRODUCTS:

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| • CO ₂ heat pump hot water supplier | pag. 122 |
| • Water chillers 6-17 kW | pag. 126 |
| • Water chillers 20-40 kW | pag. 127 |
| • Water chillers 40-80 kW | pag. 128 |
| • Water chillers 80-160 kW | pag. 129 |
| • Water terminal units | pag. 130 |
| • Fan-coil units | pag. 131 |

SHP-C450EN • SHP-TH22DON • SHP-TH22DHN

Sanyo CO2 ECO is a system that effectively utilizes heat in the atmosphere



	Heat pump unit	SHP TH2000A	SHP TH2000B	SHP TH2000C
Performance				
7.1 heating capacity / input	6.08		4.3 / 1.26	
2.5-P (climate temp. 20°C)	9/10		3.71	
7.2 heating capacity / input	6.08		4.3 / 1.40	
5-P (climate temp. 7°C)	9/10		3.34	
7.3 heating capacity / input	6.08		4.3 / 2.40	
2.5-P (climate temp. -17°C)	9/10		1.81	
Electrical Rating				
Power supply	Heat pump unit		230-240 V/50 Hz	
Power supply	Task unit	400 / 3-4		230 / 3-4
Maximum current	Task unit	20		30
Task unit				
Task capacity	Task unit		223	
Maximum working pressure	kg/cm ²		2.3	
Auxiliary electric heater capacity	6.08	0.0		7.00
Dimensions	Net (HxWxD)	mm	1547 x 597 x 919	
	Shipping (HxWxD)	mm	1736 x 792 x 727	
	Net/Shipping	kg	175.0 / 188.0	
Heat pump unit				
Refrigerant amount	kg		1.07 (0.86)	
Pressure sound level	dB-A		40.0	
Compressor	Net (HxWxD)	mm	30. Rotary two-stage compressor	
	Shipping (HxWxD)	mm	400 x 160 x 230	
	Net/Shipping	kg	26.0 / 40.0	
	Net/Shipping	kg	85.0 / 71.0	

Rearing conditions
 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838,



SHP-C45DEN SHP-TH22DDN/DHN

- Abundantly supply space heating and tap water
- Environmentally friendly with CO2 natural refrigerant
- Low ambient operation down to -20°C
- DC rotary 2 stage compressor
- High reliability, big efficiency
- Freeze protection circuit
- The unique construction of water-to-refrigerant heat exchanger ensures improved efficiency

Environmentally friendly

A natural refrigerant (CO2) heat pump hot water supplier that considers the global environment.

For its refrigerant, Sanyo "CO2 ECO" uses heat energy derived from compressed CO2, friendly to the ecosystem and our living environment. CO2 is an atoxic natural refrigerant with Ozone-Destruction Potential "0" and Global Warming Potential "1".

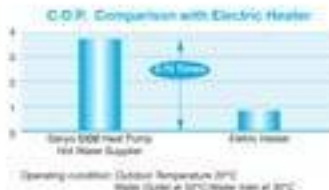
Characteristics of Natural Refrigerant CO2

Natural refrigerant	CO2	GWP	ODP
		1	0
R410A		2088	0.3
R404C		3988	0.4
R22		1810	0.05

Economical

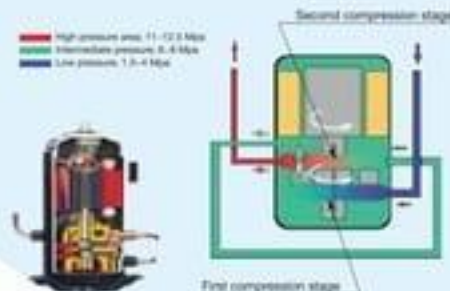
The high-efficiency heat pump method enable its superior energy-conservation capability.

The coefficient of performance (COP) is 3.73 for Sanyo "CO2 ECO" compared to 1 for electric heaters (standard condition).



Low ambient operation

With Sanyo "CO2 ECO", the heat pump operates continuously in the harsh condition of -32°C, maintaining its performance at no less than 4.0 kW. The consistent operation of the heat pump extremely low temperatures is made possible by the refrigerant circuit technology developed and refined by Sanyo. The heat pump operation of many models using "HCFC or HFC" as the refrigerant can only withstand the ambient temperature up to approximately -15°C. Electric heaters are required for temperatures below this level, resulting in performance that is not high in efficiency.



The world First CO2 ECO Rotary 2-stage Compression System

Sanyo "CO2 ECO" adopts the rotary 2-stage compressor, a creation of Sanyo original technology.

The outstanding performance of Sanyo's "2-stage compressor" supports the basic operation capability of "CO2 ECO".

Resistant to high working pressure
Internal intermediate pressure system
• easier to design shell (lower G.P.)

Resistant to large pressure difference

- 2-stage compression system
- high-reliability through load dispersion
- high efficiency (lower leakage loss)
- low vibration and low noise

High efficiency and lightweight design

- 2-stage compression system
- DC brushless motor and inverter drive
- high efficiency intensive winding motor with high-power neodymium magnet

Silent operation

With Sanyo "CO2 ECO" the noise level during operation is 45 dB-A.



SCP-AR081E5/EH5 • SCP-AR081E8/EH8
SCP-AR111E5 • SCP-AR111E8/EH8
SCP-AR151E8/EH8 • SCP-AR171E8/EH8

Power Range from 6.0 kW to 16.8 kW



SCP-AR...E/EH



SCP-AR...E/EH

- High C.O.P
- Friendly to the eco-system refrigerant R410A

- Pump and expansion vessel integrated
- Does not require the installation of a buffer tank (*)

Water test Performance	SCP-AR081E8		SCP-AR111E8		SCP-AR151E8		SCP-AR171E8		SCP-AR191E8	
	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating
Capacity	8.0	8.1	11.0	11.1	15.0	15.1	17.0	17.1	19.0	19.1
Rated power	8.0	8.1	11.0	11.1	15.0	15.1	17.0	17.1	19.0	19.1
U.L.A.C.O.P	4.0	4.1	4.0	4.1	4.0	4.1	4.0	4.1	4.0	4.1
Water flow	1.0	1.1	1.1	1.2	1.2	1.3	1.3	1.4	1.4	1.5
Water flow	1.0	1.1	1.1	1.2	1.2	1.3	1.3	1.4	1.4	1.5
Available pump head	10	10	10	10	10	10	10	10	10	10
Water pump head	10	10	10	10	10	10	10	10	10	10
Hydraulic connection diameter	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
Power supply type	3-Phase	3-Phase	3-Phase	3-Phase	3-Phase	3-Phase	3-Phase	3-Phase	3-Phase	3-Phase
Pressure control type	3-Phase	3-Phase	3-Phase	3-Phase	3-Phase	3-Phase	3-Phase	3-Phase	3-Phase	3-Phase
Outdoor connection water control (*)	1	1	1	1	1	1	1	1	1	1

Water test Performance	SCP-AR081E5		SCP-AR111E5		SCP-AR151E5		SCP-AR171E5		SCP-AR191E5	
	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating
Capacity	6.0	6.1	8.0	8.1	11.0	11.1	13.0	13.1	15.0	15.1
Rated power	6.0	6.1	8.0	8.1	11.0	11.1	13.0	13.1	15.0	15.1
U.L.A.C.O.P	4.0	4.1	4.0	4.1	4.0	4.1	4.0	4.1	4.0	4.1
Water flow	1.0	1.1	1.1	1.2	1.2	1.3	1.3	1.4	1.4	1.5
Water flow	1.0	1.1	1.1	1.2	1.2	1.3	1.3	1.4	1.4	1.5
Available pump head	10	10	10	10	10	10	10	10	10	10
Water pump head	10	10	10	10	10	10	10	10	10	10
Hydraulic connection diameter	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
Power supply type	3-Phase	3-Phase	3-Phase	3-Phase	3-Phase	3-Phase	3-Phase	3-Phase	3-Phase	3-Phase
Pressure control type	3-Phase	3-Phase	3-Phase	3-Phase	3-Phase	3-Phase	3-Phase	3-Phase	3-Phase	3-Phase
Outdoor connection water control (*)	1	1	1	1	1	1	1	1	1	1

(*) Water control of the system is better achieved by installation of a storage tank in necessary.

Specification subject to change without notice.

Operating conditions	Operating range	Operating range	Operating range	Operating range	Operating range
• Outdoor air temperature	35°C	35°C	35°C	35°C	35°C
• Indoor air temperature	15°C	15°C	15°C	15°C	15°C
• Water temperature	7°C	7°C	7°C	7°C	7°C

R410A

SCP-AR241E8 • SCP-AR271E8 • SCP-AR351E8
SCP-AR401E8 • SCP-AR201E8 • SCP-AR251E8
SCP-AR301E8 • SCP-AR401E8

Power Range from 20.8 kW to 39.0 kW



- High C.O.P
- Friendly to the eco-system refrigerant R407C

- Pump and expansion vessel integrated
- Does not require the installation of a buffer tank (*)

Water test Performance	SCP-AR241E8		SCP-AR271E8		SCP-AR351E8		SCP-AR401E8	
	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating
Capacity	20.8	20.9	27.0	27.1	35.0	35.1	40.0	40.1
Rated power	20.8	20.9	27.0	27.1	35.0	35.1	40.0	40.1
U.L.A.C.O.P	4.0	4.1	4.0	4.1	4.0	4.1	4.0	4.1
Water flow	2.0	2.1	2.1	2.2	2.2	2.3	2.3	2.4
Water flow	2.0	2.1	2.1	2.2	2.2	2.3	2.3	2.4
Available pump head	10	10	10	10	10	10	10	10
Water pump head	10	10	10	10	10	10	10	10
Hydraulic connection diameter	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
Power supply type	3-Phase	3-Phase	3-Phase	3-Phase	3-Phase	3-Phase	3-Phase	3-Phase
Pressure control type	3-Phase	3-Phase	3-Phase	3-Phase	3-Phase	3-Phase	3-Phase	3-Phase
Outdoor connection water control (*)	1	1	1	1	1	1	1	1

Water test Performance	SCP-AR241E5		SCP-AR271E5		SCP-AR351E5		SCP-AR401E5	
	Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating
Capacity	16.0	16.1	20.0	20.1	24.0	24.1	28.0	28.1
Rated power	16.0	16.1	20.0	20.1	24.0	24.1	28.0	28.1
U.L.A.C.O.P	4.0	4.1	4.0	4.1	4.0	4.1	4.0	4.1
Water flow	1.0	1.1	1.1	1.2	1.2	1.3	1.3	1.4
Water flow	1.0	1.1	1.1	1.2	1.2	1.3	1.3	1.4
Available pump head	10	10	10	10	10	10	10	10
Water pump head	10	10	10	10	10	10	10	10
Hydraulic connection diameter	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
Power supply type	3-Phase	3-Phase	3-Phase	3-Phase	3-Phase	3-Phase	3-Phase	3-Phase
Pressure control type	3-Phase	3-Phase	3-Phase	3-Phase	3-Phase	3-Phase	3-Phase	3-Phase
Outdoor connection water control (*)	1	1	1	1	1	1	1	1

(*) Water control of the system is better achieved by installation of a storage tank in necessary.

Specification subject to change without notice.

Operating conditions	Operating range	Operating range	Operating range	Operating range	Operating range
• Outdoor air temperature	35°C	35°C	35°C	35°C	35°C
• Indoor air temperature	15°C	15°C	15°C	15°C	15°C
• Water temperature	7°C	7°C	7°C	7°C	7°C

R407C

SCP-AR501EH/EH8 • SCP-AR601EH/EH8 • SCP-AR701EH/EH8
SCP-AR801EH/EH8

Power Range from 40.6 kW to 78.0 kW



- High C.O.P
- Friendly to the eco-system refrigerant R407C
- Built-in hydraulic module with pump, expansion tank, buffer tank

SCP-AR951EH8 • SCP-AR1001EH8 • SCP-AR1401EH8
SCP-AR1601EH8 • SCP-AR1001EH8 • SCP-AR1251EH8 • SCP-AR1401EH8

Power Range from 80.8 kW to 140 kW



- Eco-friendly R407C refrigerant
- High efficiency
- Built-in hydraulic module with pump, expansion tank and buffer tank

Water Unit Performance	Cooling	SCP-AR501EH		SCP-AR601EH		SCP-AR701EH		SCP-AR801EH	
		Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating
Capacity	kW	40.6	40.6	50.4	50.4	60.2	60.2	78.0	78.0
Max. input power	kW	10.0	10.0	12.5	12.5	15.0	15.0	19.0	19.0
12.5/15.0/19.0	kW	1.0	1.0	1.25	1.25	1.5	1.5	1.9	1.9
Water flow	m³/h	1.0	1.0	1.25	1.25	1.5	1.5	1.9	1.9
Available pump head	mPa	300	300	300	300	300	300	300	300
Max. water head	mPa	300	300	300	300	300	300	300	300
Hydraulic connection diameter	mm	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
Power supply tank	mm	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6
Pressure supply tank	mm	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6
System structure water supply tank	mm	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6

Dimensions & Weight									
Unit size	mm	1000 x 1000 x 1000	1000 x 1000 x 1000	1000 x 1000 x 1000	1000 x 1000 x 1000	1000 x 1000 x 1000	1000 x 1000 x 1000	1000 x 1000 x 1000	1000 x 1000 x 1000
Weight	kg	200	200	200	200	200	200	200	200

Specifications subject to change without notice

Water Unit Performance	Cooling	SCP-AR951EH8		SCP-AR1001EH8		SCP-AR1401EH8		SCP-AR1601EH8	
		Cooling	Heating	Cooling	Heating	Cooling	Heating	Cooling	Heating
Capacity	kW	80.8	80.8	95.2	95.2	140.0	140.0	160.0	160.0
Max. input power	kW	20.0	20.0	24.0	24.0	35.0	35.0	40.0	40.0
12.5/15.0/19.0	kW	2.0	2.0	2.4	2.4	3.5	3.5	4.0	4.0
Water flow	m³/h	2.0	2.0	2.4	2.4	3.5	3.5	4.0	4.0
Available pump head	mPa	300	300	300	300	300	300	300	300
Max. water head	mPa	300	300	300	300	300	300	300	300
Hydraulic connection diameter	mm	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
Power supply tank	mm	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6
Pressure supply tank	mm	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6
System structure water supply tank	mm	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6

Dimensions & Weight									
Unit size	mm	1000 x 1000 x 1000	1000 x 1000 x 1000	1000 x 1000 x 1000	1000 x 1000 x 1000	1000 x 1000 x 1000	1000 x 1000 x 1000	1000 x 1000 x 1000	1000 x 1000 x 1000
Weight	kg	200	200	200	200	200	200	200	200

Specifications subject to change without notice

Operating conditions									
• Outdoor air temperature	35°C	• Outdoor air temperature	35°C	• Outdoor air temperature	35°C	• Outdoor air temperature	35°C	• Outdoor air temperature	35°C
• Cold water temperature	12°C	• Cold water temperature	12°C	• Cold water temperature	12°C	• Cold water temperature	12°C	• Cold water temperature	12°C
• Hot water temperature	70°C	• Hot water temperature	70°C	• Hot water temperature	70°C	• Hot water temperature	70°C	• Hot water temperature	70°C

Operating conditions									
• Outdoor air temperature	35°C	• Outdoor air temperature	35°C	• Outdoor air temperature	35°C	• Outdoor air temperature	35°C	• Outdoor air temperature	35°C
• Cold water temperature	12°C	• Cold water temperature	12°C	• Cold water temperature	12°C	• Cold water temperature	12°C	• Cold water temperature	12°C
• Hot water temperature	70°C	• Hot water temperature	70°C	• Hot water temperature	70°C	• Hot water temperature	70°C	• Hot water temperature	70°C

Note

