SPRSUN

A Professional Heat Pump Manufacturer Since 1999

BUILD YOUR SMART HOME

WHOLE HOUSE HEATING + COOLING + HOT WATER

CAREL CONTROL SYSTEM



RoHS CE MCS CERTIFIED UK CA AIT TÜV SÜD SG Ready ErP

CAREL CONTROL SYSTEM PACKAGE

Air to Water Heating, Cooling & DHW

GreenergyPro Series

R290 DC Inverter Air Source Heat Pumps



ClimaWise Series

R32 DC Inverter Air Source Heat Pumps



Easy Installation Solution

Easy AquaKit



Integral Hydronic Tank



Hot Water and Buffer Tanks

Water Tank

60L 100L 150L 200L 260L 320L 500L 1000L available



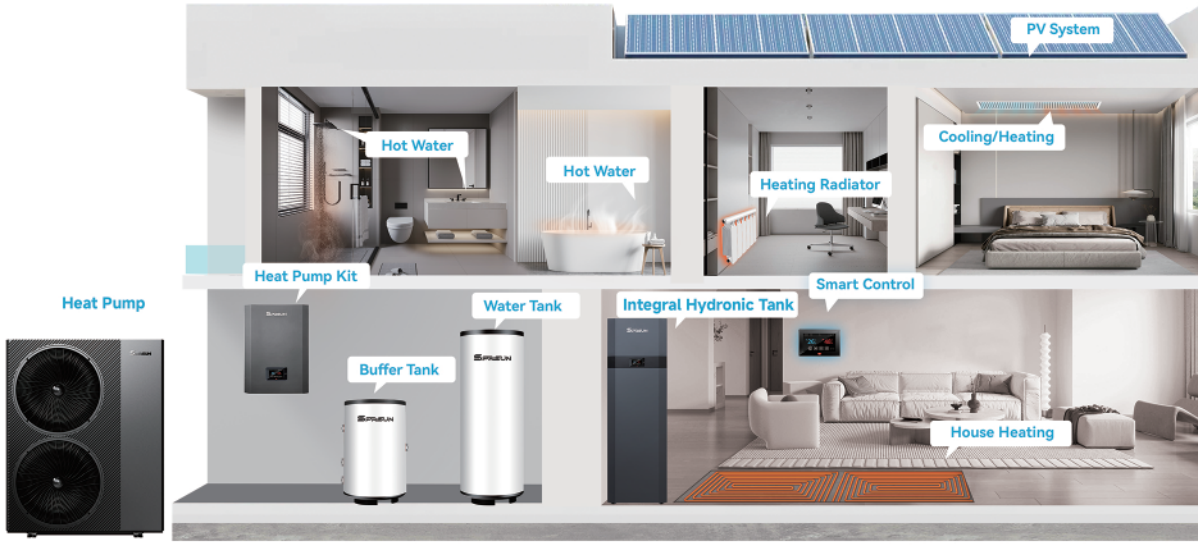
Other

FAN COIL



ONE-STOP SOLUTION TO MEET VARIOUSRESIDENTIAL NEEDS

CAREL CONTROL SYSTEM





These two heat pump series deliver smarter, more efficient heating, cooling, and domestic hot water (DHW) solutions for residential use. Their key advantages are exceptional safety, reliability, and integrated smart technology.

- Multiple Modes for Comfortable Use
- High Energy Efficiency (ERP A+++)
- Stable Running Ambient (-25°C)
- CAREL Touch Screen Controller
- Reduced Noise
- IoT Cloud Platform
- KEYMARK Certification
- SG Ready

SMART CONTROL SYSTEM

- AI Defrost
- Energy Consumption Tracking (Built-in Energy Consumption Statistics Module)
- Remote Control & Monitoring via APP



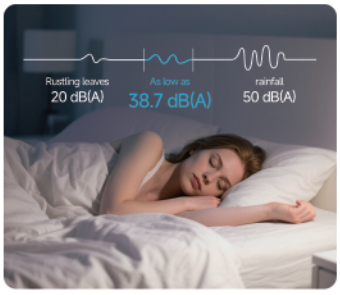
HIGH RELIABILITY

- R290 Safety Structure- Safety Partition Chamber
- R290 Explosion-proof Accessories



ADVANCED NOISE REDUCTION TECHNOLOGY

- Innovative Acoustic Isolation Compartment Tech
- Composite Sound-Insulating Materials
- Vibration-Dampening Design



ADVANTAGES OF THE CAREL SYSTEM

Extended Lifespan

Multi-Protection Systems

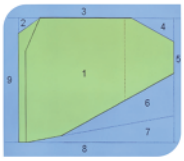


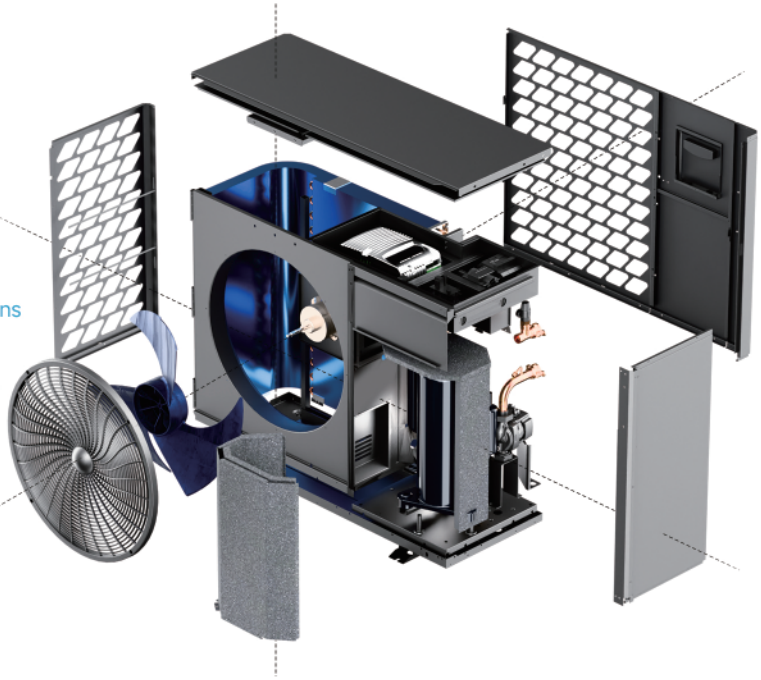
High Immunity

Effective Handling Of Voltage Fluctuations And Rapid Climate Shifts

Enhanced Efficiency

The Smart System Leverages the Compressor Operating Envelope to Achieve Peak Efficiency







Colour Touch Controller

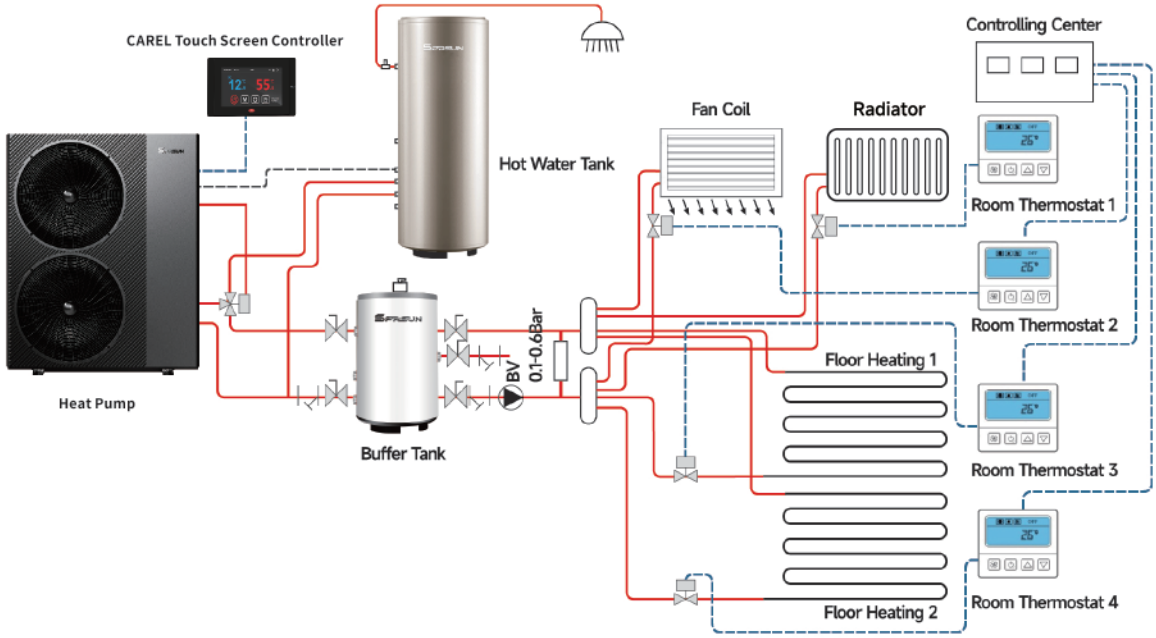
- Customizable System
- Fast Response & Precision Control
- Multiple Fan Modes
- Multiple Working Modes
- Multi-language Available

GET IT ON Google Play

Download on the App Store

*Modes: Heating/Cooling/DHW/Heating+DHW/Cooling+DHW

INSTALLATION DIAGRAM





R290 Refrigerant:

Future-ready (GWP=3, ODP=0)

High Safety Rating:

Stable and Reliable R290 Safety Accessories

Built-in Water Pump

Grundfos(Shinhoo Optional)

75°C Max. Outlet Water:

Unmatched High-Temperature Capability

SPECIFICATION



Model			CGK030V4P	CGK040V4P	CGK050V4P	CGK060V4P	CGK-030V4P	CGK-040V4P	CGK-050V4P	CGK-060V4P
Power Supply / Refrigerant		V/Hz/Ph	220-240/50/1 ~ R290				380-420/50/3 ~ R290			
Max. Heating Capacity (A7°C/W35°C)		kW	9.5	11.5	15.5	18.5	9.5	11.5	15.5	18.5
C.O.P (A7°C/W35°C)		W/W	4.42	4.44	4.42	4.14	4.42	4.44	4.42	4.14
Heating Capacity Min./Max.(A7°C/W35°C)		kW	4.37 / 9.50	5.29 / 11.50	7.13 / 15.50	8.51 / 18.50	4.37 / 9.50	5.29 / 11.50	7.13 / 15.50	8.51 / 18.50
Heating Power Input Min./Max.(A7°C/W35°C)		W	778 / 2149	938 / 2590	1241 / 3507	1523 / 4469	778 / 2149	938 / 2590	1241 / 3507	1523 / 4469
C.O.P Min./Max.(A7°C/W35°C)		W/W	4.42 / 5.61	4.44 / 5.64	4.42 / 5.75	4.14 / 5.59	4.42 / 5.61	4.44 / 5.64	4.42 / 5.75	4.14 / 5.59
Max. Heating Capacity(A7°C/W45°C)		kW	8.9	10.7	14.1	17.7	8.9	10.7	14.1	17.7
C.O.P (A7°C/W45°C)		W/W	3.64	3.77	3.71	3.62	3.64	3.77	3.71	3.62
Heating Capacity Min./Max.(A7°C/W45°C)		kW	4.09 / 8.88	4.92 / 10.70	6.49 / 14.11	8.13 / 17.67	4.09 / 8.88	4.92 / 10.70	6.49 / 14.11	8.13 / 17.67
Heating power input Min./Max.(A7°C/W45°C)		W	958 / 2439	1148 / 2834	1486 / 3799	1913 / 5334	958 / 2512	1148 / 3011	1486 / 3989	1913 / 5334
C.O.P Min./Max.(A7°C/W45°C)		W/W	3.64 / 4.27	3.77 / 4.29	3.71 / 4.37	3.31 / 4.25	3.54 / 4.27	3.55 / 4.29	3.54 / 4.37	3.31 / 4.25
Max. Cooling Capacity(A35°C/W18°C)		kW	8.4	10.2	13.4	16.8	8.4	10.2	13.4	16.8
E.E.R (A35°C/W18°C)		W/W	3.53	3.66	3.60	3.51	3.53	3.66	3.60	3.51
Cooling Capacity Min./Max.(A35°C/W18°C)		kW	3.88 / 8.44	4.67 / 10.16	6.16 / 13.40	7.72 / 16.78	3.88 / 8.44	4.67 / 10.16	6.16 / 13.40	7.72 / 16.78
Cooling Power Input Min./Max.(A35°C/W18°C)		W	928 / 2389	1113 / 2775	1440 / 3721	1855 / 4780	928 / 2389	1113 / 2775	1440 / 3721	1855 / 4780
E.E.R Min./Max.(A35°C/W18°C)		W/W	3.53 / 4.18	3.66 / 4.20	3.60 / 4.28	3.51 / 4.16	3.53 / 4.18	3.66 / 4.20	3.60 / 4.28	3.51 / 4.16
Max. Cooling Capacity(A35°C/W7°C)		kW	7.5	9.0	11.5	14.5	7.5	9.0	11.5	14.5
E.E.R(A35°C/W7°C)		W/W	2.90	2.92	2.75	2.82	2.90	2.92	2.75	2.82
Cooling Capacity Min./Max.(A35°C/W7°C)		kW	3.45 / 7.50	4.14 / 9.00	5.29 / 11.50	6.67 / 14.50	3.45 / 7.50	4.14 / 9.00	5.29 / 11.50	6.67 / 14.50
Cooling Power Input Min./Max.(A35°C/W7°C)		W	938 / 2586	1120 / 3082	1405 / 4182	1821 / 5142	938 / 2586	1120 / 3082	1405 / 4182	1821 / 5142
E.E.R Min./Max.(A35°C/W7°C)		W/W	2.90 / 3.68	2.92 / 3.70	2.75 / 3.77	2.82 / 3.66	2.90 / 3.68	2.92 / 3.70	2.75 / 3.77	2.82 / 3.66
Max Power Input		kW	4.36	5.05	6.80	7.83	4.36	5.05	6.80	7.83
Max Current		A	20.86	24.16	32.54	37.46	9.20	10.66	14.35	16.52
Wire diameter		mm^2	4.0	6.0	6.0	6.0	2.5	2.5	4.0	4.0
Fuse or circuitbreakerer		A	32A	32A	40A	50A	13A	16A	20A	25A
Compressor	Type ~ Quantity/System		Twin Rotary ~ 1							
Fan	Quantity		1	1	2	2	1	1	2	2
	Airflow	m3/h	3000	3500	5000	5500	3000	3500	5000	5500
	Rated power	W	100	120	200	210	100	120	200	210
Water Side Heat Exchanger	Type		Plate Heat Exchanger							
	Water Pressure Drop	kPa	20	21	23	25	20	21	23	25
	Piping Connection	Inch	G1"							
Pump model		/	UPM4XLK 25-90 130	UPM4XLK 25-90 130	UPM10L 25-105 130	UPM10L 25-105 130	UPM4XLK 25-90 130	UPM4XLK 25-90 130	UPM10L 25-105 130	UPM10L 25-105 130
Max Water Pump Head		m	9	9	10.5	10.5	9	9	10.5	10.5
Allowable Water Flow	Min./Rated./Max.	L/S	0.28 0.45 0.76	0.34 0.55 0.92	0.46 0.74 1.23	0.55 0.88 1.47	0.28 0.45 0.76	0.34 0.55 0.92	0.46 0.74 1.23	0.55 0.88 1.47
Sound pressure level(1m)		dB(A)	41.2-50.6	40.4-49.2	40.4-50.8	44.7-51	41.2-49.7	41.1-52	41.7-50.7	42.4-49
Sound power level(1m)		dB(A)	60.7	59.8	62.1	63.2	60.3	61.6	61.6	61.1
Net Dimension(L×D×H)		mm	1110*475*810	1110*475*960	1110*475*1355	1110*475*1355	1110*475*810	1110*475*960	1110*475*1355	1110*475*1355
Net Weight		kg	107	116	156	156	103	116	156	156
Seasonal space heating energyefficiency classes: (According (EU)No 811/2013 Table 2)		--	A+++							
Operation Ambint Temp.(°C)			-25~45							
Operation water Temp.(°C)			10~70(DHW)							
Operation water Temp.(°C)			10~70(Heating)							
Operation water Temp.(°C)			12~30(Cooling)							

Note: (1) Heating condition: water inlet/outlet temperature: 30°C/35°C, Ambient temperature: DB 7°C/WB 6°C; (2) Heating condition: water inlet/outlet temperature: 40°C/45°C, Ambient temperature: DB 7°C/WB 6°C; (3) Cooling condition: water inlet/outlet temperature: 23°C/18°C, Ambient temperature: DB35°C/WB24°C; (4) Cooling condition: water inlet/outlet temperature: 12°C/7°C, Ambient temperature: DB35°C/WB24°C;

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R32 Refrigerant:

Widely adopted
eco-efficient solution

60°C Max. Outlet Water:

Max.Outlet Water
Temperature

EVI System:

Efficient heating at
ultra-low temp
(Max. COP 5.95)

SPECIFICATION



Model			CGK015V3L	CGK025V3L	CGK030V3L	CGK040V3L	CGK050V3L	CGK060V3L	CGK-025V3L	CGK-030V3L	CGK-040V3L	CGK-050V3L	CGK-060V3L
Power Supply / Refrigerant		V/Hz/Ph	220-240/50/1 - R32						380-420/50/3 - R32				
Max. Heating Capacity (1)		kW	6	9.5	12	16	20	22	9.5	12	16	20	22
C.O.P (1)		W/W	4.45	4.58	4.45	4.71	4.75	4.62	4.58	4.45	4.71	4.76	4.65
Heating Capacity Min./Max.(1)		kW	2.76 / 6	4.37 / 9.5	5.52 / 12	7.36 / 16	9.2 / 20	10.12 / 22	4.37 / 9.5	5.52 / 12	7.36 / 16	9.2 / 20	10.12 / 22
Heating Power Input Min./Max.(1)		W	496 / 1348	763 / 2074	992 / 2697	1250 / 3397	1549 / 4211	1752 / 4762	763 / 2074	992 / 2697	1250 / 3397	1546 / 4202	1741 / 4731
C.O.P Min./Max.(1)		W/W	4.45 / 5.56	4.58 / 5.73	4.45 / 5.56	4.71 / 5.89	4.75 / 5.94	4.62 / 5.78	4.58 / 5.73	4.45 / 5.56	4.71 / 5.89	4.76 / 5.95	4.65 / 5.81
Max. Heating Capacity(2)		kW	5.8	9.1	11.5	15.4	19.2	21.1	9.1	11.5	15.4	19.2	21.1
C.O.P (2)		W/W	3.60	3.71	3.60	3.82	3.85	3.70	3.71	3.60	3.82	3.81	3.60
Heating Capacity Min./Max.(2)		kW	2.65 / 5.76	4.20 / 9.12	5.30 / 11.52	7.07 / 15.36	8.83 / 19.20	9.72 / 21.12	4.20 / 9.12	5.30 / 11.52	7.07 / 15.36	8.83 / 19.20	9.72 / 21.12
Heating power Input Min./Max.(2)		W	627 / 1618	964 / 2489	1254 / 3236	1579 / 4076	1957 / 5053	2214 / 5714	964 / 2489	1254 / 3236	1579 / 4076	1953 / 5042	2199 / 5677
C.O.P Min./Max.(2)		W/W	3.56 / 4.23	3.66 / 4.35	3.56 / 4.23	3.77 / 4.47	3.80 / 4.51	3.70 / 4.39	3.66 / 4.35	3.56 / 4.23	3.77 / 4.47	3.81 / 4.52	3.72 / 4.42
Max. Cooling Capacity(3)		kW	5.5	8.7	10.9	14.6	18.2	20.1	8.7	10.9	14.6	18.2	20.1
E.E.R (3)		W/W	3.50	3.60	3.50	3.70	3.73	3.59	3.60	3.50	3.70	3.69	3.50
Cooling Capacity Min./Max.(3)		kW	2.52 / 5.47	3.99 / 8.66	5.03 / 10.94	6.71 / 14.59	8.39 / 18.24	9.23 / 20.06	3.99 / 8.66	5.03 / 10.94	6.71 / 14.59	8.39 / 18.24	9.23 / 20.06
Cooling Power Input Min./Max.(3)		W	608 / 1852	935 / 2849	1215 / 3704	1531 / 4666	1897 / 5783	2146 / 6540	935 / 2849	1215 / 3704	1531 / 4666	1893 / 5771	2132 / 6498
E.E.R Min./Max.(3)		W/W	2.95 / 4.14	3.04 / 4.26	2.95 / 4.14	3.13 / 4.39	3.15 / 4.42	3.07 / 4.30	3.04 / 4.26	2.95 / 4.14	3.13 / 4.39	3.16 / 4.43	3.09 / 4.33
Max. Cooling Capacity(4)		kW	4.3	6.2	8.6	10.4	14.4	15.8	6.2	8.6	10.4	14.4	15.8
E.E.R(4)		W/W	2.52	2.59	2.62	2.66	2.80	2.69	2.59	2.62	2.66	2.77	2.62
Cooling Capacity Min./Max.(4)		kW	1.99 / 4.32	2.85 / 6.20	3.97 / 8.64	4.80 / 10.44	6.62 / 14.40	7.29 / 15.84	2.85 / 6.20	3.97 / 8.64	4.80 / 10.44	6.62 / 14.40	7.29 / 15.84
Cooling Power Input Min./Max.(4)		W	545 / 1720	760 / 2399	1090 / 3440	1245 / 3929	1702 / 5371	1925 / 6075	760 / 2399	1090 / 3440	1245 / 3929	1699 / 5360	1913 / 6036
E.E.R Min./Max.(4)		W/W	2.51 / 3.65	2.58 / 3.75	2.51 / 3.65	2.66 / 3.86	2.68 / 3.89	2.61 / 3.79	2.58 / 3.75	2.51 / 3.65	2.66 / 3.86	2.69 / 3.90	2.62 / 3.81
Rated Current		A	6.5	9.9	12.9	16.3	20.1	22.8	4.4	5.7	7.2	8.9	10.0
Max Power Input		kW	2.0	3.0	3.9	4.9	6.1	6.9	3.0	3.9	4.9	6.1	6.9
Max Current		A	9.4	14.4	18.7	23.6	29.2	33.0	6.3	8.3	10.4	12.9	14.5
Wire diameter		mm^2	2.5	4.0	4.0	6.0	6.0	6.0	2.5	2.5	2.5	4.0	4.0
Fuse or Circuit breaker		A	16A	20A	25A	32A	40A	40A	13A	13A	16A	20A	20A
Compressor	Type - Quantity/System		Twin Rotary - 1										
	Quantity		1	1	1	1	2	2	1	1	1	2	2
Fan	Airflow	m3/h	1500	2500	3000	3500	5000	5500	2500	3000	3500	5000	5500
	Rated power	W	60	80	100	120	200	210	80	100	120	200	210
Water Side Heat Exchanger	Type		Plate Heat Exchanger										
	Water Pressure Drop	kPa	14	18	20	21	23	25	18	20	21	23	25
	Piping Connection	Inch	G3/4"	G1"	G1"	G1"	G1"	G1"	G1"	G1"	G1"	G1"	G1"
Allowable Water Flow	Min./Rated./Max.	L/S	0.18 0.29 0.48	0.28 0.45 0.76	0.36 0.57 0.96	0.48 0.76 1.27	0.60 0.96 1.59	0.66 1.05 1.75	0.28 0.45 0.76	0.36 0.57 0.96	0.48 0.76 1.27	0.60 0.96 1.59	0.66 1.05 1.75
Sound pressure level(1m)		dB(A)	40.8-50.8	41.6-50.1	41.4-51.5	46.9-57.1	44.1-54.1	41.6-55.4	38.7-49.4	41.2-51.4	42-55.4	42.8-54	46.6-54.7
Sound power level(1m)		dB(A)	60.1	61.2	63.2	64.2	66.5	69.5	61.4	63.7	64.2	66.1	67.9
Net Dimension(L×D×H)		mm	990*375*655	1110*475*810	1110*475*810	1110*475*960	1110*475*1355	1110*475*1355	1110*475*810	1110*475*810	1110*475*960	1110*475*1355	1110*475*1355
Net Weight		Kg	59	96	104	114	140	140	96	102	114	140	140

Note: (1) Heating condition: water inlet/outlet temperature: 30°C/35°C, Ambient temperature: DB 7°C/WB 6°C; (2) Heating condition: water inlet/outlet temperature: 40°C/45°C, Ambient temperature: DB 7°C/WB 6°C; (3) Cooling condition: water inlet/outlet temperature: 23°C/18°C, Ambient temperature: DB35°C/WB24°C; (4) Cooling condition: water inlet/outlet temperature: 12°C/7°C, Ambient temperature: DB35°C/WB24°C;

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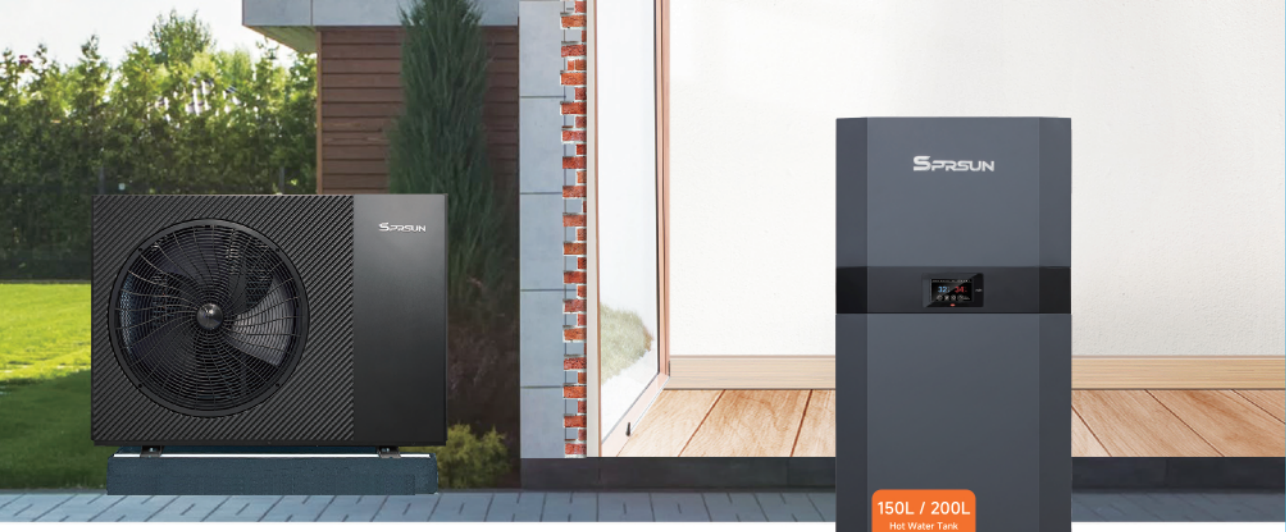
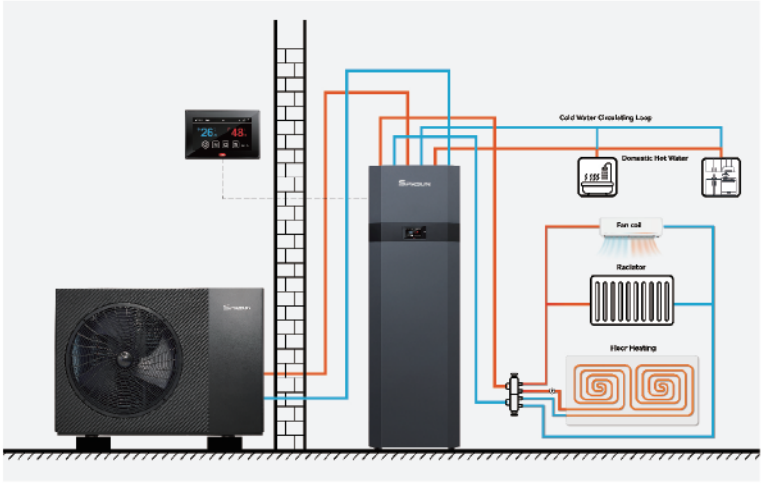


Integral Hydronic Tank

Easy Installation & Cost Saving

SPRSUN Integral Hydronic Tank for indoor heating and hot water integrates essential accessories, simplifying the installation of your heat pump and resulting in time and cost savings.



- Efficient Heating
- Dual Temperature Zone Control
- Increase The Stability of The Unit
- Zero Cold Water Control
- Dual Safety Protection
- Adaptable with Solar Water Heater

SPECIFICATION

The Specification of Integral Hydronic Tank with CAREL Controller

	Model	CGH06HR150	CGH06HR200	CGH-06HR150	CGH-06HR200
Main Configuration	Power Supply (V/Hz/Ph)	220-240/50/1		380-420/50/3	
	Power	Hot water electric heater 3KW + heating electric heater 3KW			
	Sheet Metal	Galvanized Steel Sheet (Grey)			
	3-Way Valve	DN25			
	Electric Heater	3kW/220-240V~		3kW/380V~	
	Expansion Tank (L)	5			
	AC Contactor (A)	32 (Explosion proof relay)			
	Package	Splint			
	Heat Exchange Coil (SUS304 corrugated pipe)	DN32*15m			
	Controller Brand	CAREL			
	others	Built-in drain valve and exhaust valve			
	Buffer water tank	60L			
	Hot water tank	150L	200L	150L	200L
	Exhaust Pipe Size	DN15 (Female thread)			
	Current (A)	13.6A+13.6A		7.8A+7.8A	
	Max. water temp.	75℃			
Parameters	Net Dimension (mm)	585*630*1865mm	665*625*1985mm	585*630*1865mm	665*625*1985mm
	Splint Packaging Dimension (mm)	735*690*2070mm	775*730*2195mm	735*690*2070mm	775*730*2195mm
	Carton Size (mm)	727*685*1955mm	770*725*2095mm	727*685*1955mm	770*725*2095mm
	Net Weight (Kg)	125	155	125	155
	Suitable models	CGK030V4P、CGK040V4P、CGK050V4P、CGK060V4P、CGK-030V4P、CGK-040V4P、CGK-050V4P、CGK-060V4P	CGK030V4P、CGK040V4P、CGK050V4P、CGK060V4P、CGK-030V4P、CGK-040V4P、CGK-050V4P、CGK-060V4P	CGK-030V4P、CGK-040V4P、CGK-050V4P、CGK-060V4P、	CGK-030V4P、CGK-040V4P、CGK-050V4P、CGK-060V4P、

Note: If the 380V model uses the CGH06HR150 Integral Hydronic Tank, you need to pay attention to whether the power supply can withstand the current of the Integral Hydronic Tank. Connecting cables, circuit breakers, etc. require additional configuration by the user.

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SPRSUN

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e-Catalogue