SPRSUN

A Professional Heat Pump Manufacturer Since 1999

BUILD YOUR SMART HOME

R290 DC Inverter Heat Pumps

CAREL CONTROL SYSTEM



Greenergy Pro Series



RoHS CE MCS CERTIFIED UKCA AIT TÜV SÜD SG Ready ErP

CAREL CONTROL SYSTEM PACKAGE

Air to Water Heating, Cooling & DHW

Greenergy Pro Series

R290 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 VARIOUS RESIDENTIAL NEEDS

CAREL CONTROL SYSTEM



Greenergy Pro Series



Heating | Cooling | Hot Water

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



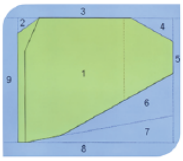


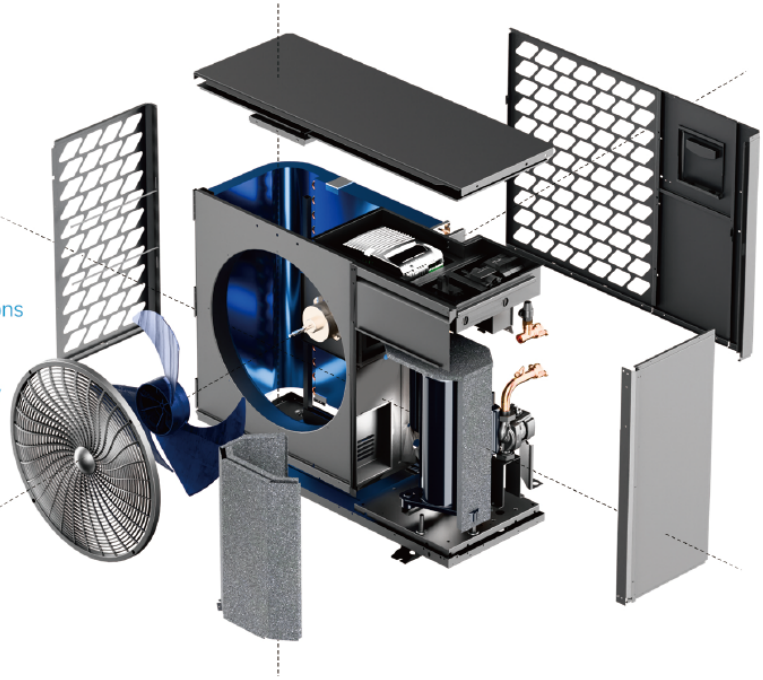
High Immunity

Effective Handling Of Voltage Fluctuations And Rapid Climate Shifts

Enhanced Efficiency

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



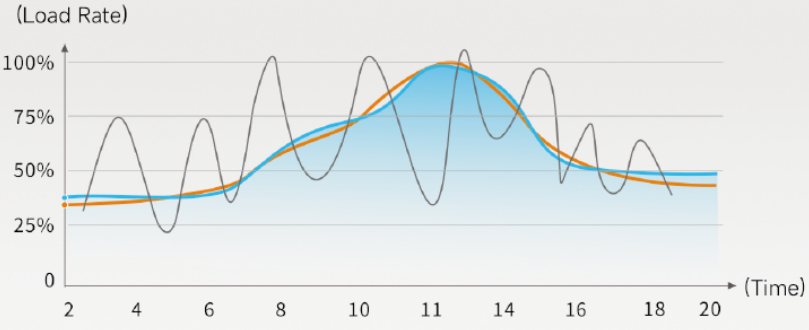


ADVANCED HEAT PUMP TECHNOLOGY

Full Inverter Technology

Cuts energy waste by over 25%

Fixed-speed Units	Variable-speed Units
Frequent starts/stops ➤ Accumulates startup energy waste	Continuous speed adjustment ➤ Precisely matches load demands
Mechanical wear ➤ Reduces compressor lifespan	Stable operation ➤ Eliminates frequent start cycles
Rigid operation ➤ Higher overall energy consumption	Long-term efficiency ➤ 30-50% energy savings in continuous operation



SPRSUN IOT PLATFORM

- Effortless Energy Management

GREENERGY PRO

- Real-Time Monitoring & Data Collection
- Remote Control & Adjustment
- Intelligent Optimization & Scheduling
- Proactive Troubleshooting & Maintenance
- Clear, Intuitive Energy Curves
- User-Friendly Management Interface
- OTA Update

GET IT ON Google Play

Download on the App Store

End-user APP

- Remote Control and Management
- HP Operation Monitoring
- Historical Energy Consumption Tracking
- Fault Alerts

Dealer APP

- Equipment Data Collection
- Remote After-Sales Support
- HP Installation Management
- HP Inventory Management

INSTANT CLIMATE CONTROL AT YOUR FINGERTIPS

5-Inch Color Touchscreen



Global 25-Language Support

English, Danish, German, Polish, Finnish, Dutch, Czech, Norwegian, Slovak, Macedonian, Romanian, Italian, More



R290 Refrigerant

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

High Safety Rating

Stable and Reliable R290 Safety Accessories

Built-in Water Pump

SHIMGE

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	220-240/50/1 - R290	220-240/50/1 - R290	220-240/50/1 - R290	380-420/50/3 - R290	380-420/50/3 - R290	380-420/50/3 - 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	3.51 / 4.25	3.54 / 4.27	3.55 / 4.29	3.54 / 4.37	3.51 / 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 circuit breaker		A	32A	32A	40A	50A	13A	16A	20A	25A
Water Flow		m^3/h	1.63	2.00	2.67	3.18	1.63	2.00	2.67	3.18
Hot Water Flow Rate		L/h	191	230	303	381	191	230	303	381
Compressor	Type - Quantity/System		Twin Rotary - 1	Twin Rotary - 1	Twin Rotary - 1	Twin Rotary - 1	Twin Rotary - 1	Twin Rotary - 1	Twin Rotary - 1	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	Plate Heat Exchanger	Plate Heat Exchanger	Plate Heat Exchanger	Plate Heat Exchanger	Plate Heat Exchanger	Plate Heat Exchanger	Plate Heat Exchanger
	Water Pressure Drop	kPa	20	21	23	25	20	21	23	25
	Piping Connection	Inch	G1"	G1"	G1"	G1"	G1"	G1"	G1"	G1"
Pump model		/	APM25-9-130	APM25-9-130	APF25-12-130E	APF25-12-130E	APM25-9-130	APM25-9-130	APF25-12-130E	APF25-12-130E
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	168	107	116	156	168
Pdesignh (35/55°C)		kW	6.796/6.051	7.654/7.156	10.399/9.33	12.169/10.791	6.636/6.349	7.738/7.225	10.582/9.615	12.7/11.71
SCOP (35/55°C)		kWh/kWh	4.76/3.62	4.79/3.66	4.69/3.62	4.80/3.68	4.77/3.6	4.78/3.63	4.71/3.64	4.76/3.69
SCOPon (35/55°C)		kWh/kWh	4.78/3.63	4.84/3.67	4.7/3.63	4.81/3.69	4.79/3.61	4.8/3.64	4.72/3.65	4.77/3.7
Q_H (35/55°C)		kWh/year	14040/12501	15813/14784	21485/19276	25140/24360	13710/13118	15986/14927	21862/19864	26538/24192
Q_{HE} (35/55°C)		kWh/year	2951/3455	3299/4045	4582/5327	5240/6612	2874/3642	3345/4116	4643/5458	5510/6550
$\eta_{s,h}$ (35/55°C)		—	187.3%/141.7%	188.7%/143.2%	184.6%/141.8%	188.9%/144.4%	187.8%/141.1%	188.2%/142%	185.3%/142.6%	187.5%/144.7%
Seasonal space heating energyefficiency classes: (According (EU)No 811/2013 Table 2)		—	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++
Seasonal space heating energyefficiency classes: (According (EU)No 811/2013 Table 1)		—	A++	A++	A++	A++	A++	A++	A++	A++
Operation Ambient Temp.(°C)			-25-45							

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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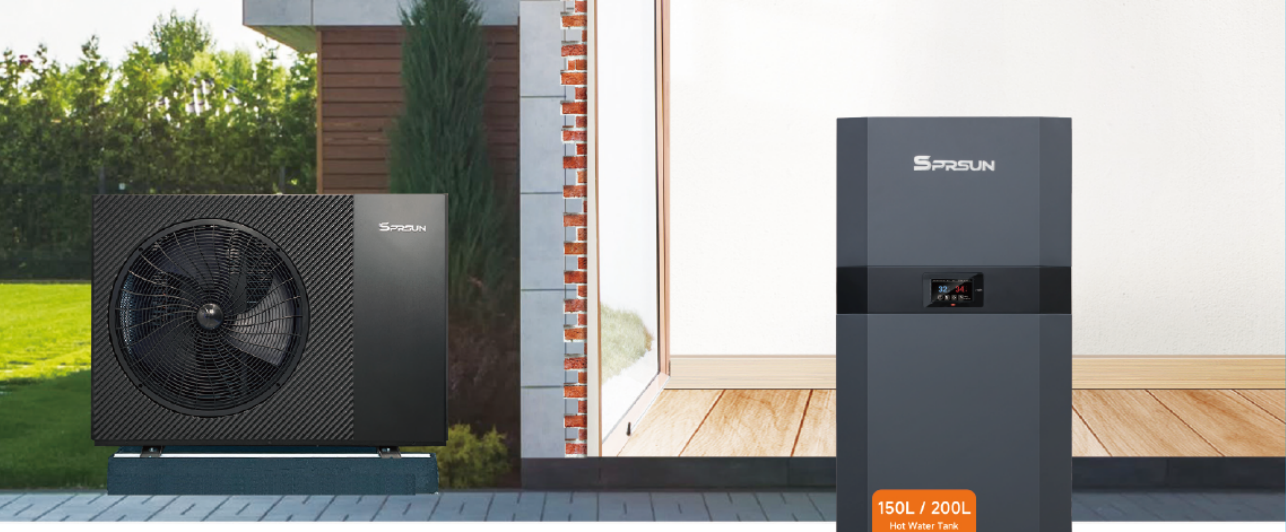
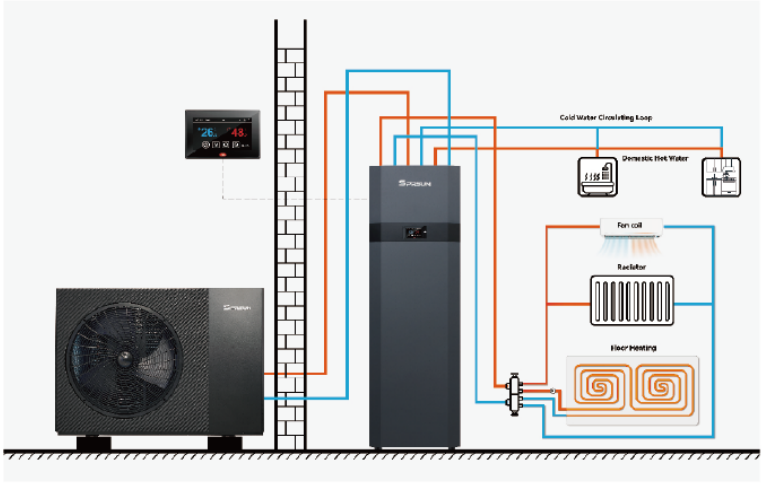


Integral Hydronic Tank

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)	32A (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°C			
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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Guangzhou SPRSUN New Energy Technology Development Co., Ltd.

No. 10, Zhizao Avenue, Xiancun Town, Zengcheng District, Guangzhou City,
Guangdong Province, China, 511335
Tel: 0086-20-8218 1867 Mobile/WhatsApp: 0086-189 3398 5692
Email: inquiry@sprsun.com

e-Catalogue

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