



## SPRSUN R290 DC Inverter Air Source Heat Pumps



Multiple Modes for  
Comfortable Use



Stable Running  
Ambient



Max. Outlet Water  
Temperature



Grundfos  
Water Pump



High Energy  
Efficiency



Reduced  
Noise



CAREL  
Controller



SG  
Ready





## R290 Refrigerant

SPRSUN DC Inverter Air Source Heat Pumps specially adopt R290 refrigerant with global warming potential (GWP) as low as 3.3. As an environment-friendly refrigerant, R290 has many advantages, making it very suitable for the application of low-temperature heat pump heating in the cold areas.



# Smart Control

The CAREL controller is able to record temperatures unaided using sensors that record the surrounding conditions. With the WIFI online monitoring, customers will enjoy contactless support from our customer service center no matter where they are.

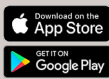
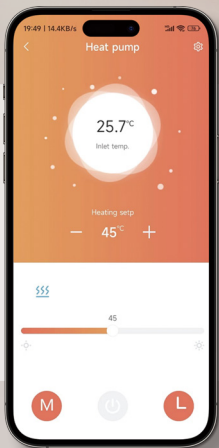


# SPRSUN Smart Control System



## Working Principle

SPRSUN's self-developed smart control system is equipped with highly integrated control functions, which can be operated via a remote APP. The system is easy to manipulate, stable in performance, and is truly a smart operating system that realizes man-machine separation.



# Heating in Low Temperature

Regulate heating and cooling using DC inverter compressors and DC inverter controllers; SPRSUN DC inverter heat pumps can operate at high frequency to heat water faster. When the temperature reaches the set temperature, it will operate at a low frequency with less energy consumed to maintain the temperature.

**Panasonic**



# Key Components

We believe that by joining hands and working together, we will be able to create greater value for our customers. We cooperate with leading companies such as Panasonic, CAREL, Grundfos, Copeland, MITSUBISHI, Schneider and SANYO to ensure upgraded product quality.



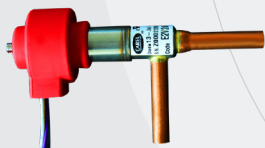
**Controller**  
CAREL Touch screen Controller 4.3



**Condenser**  
Plate Heat Exchanger



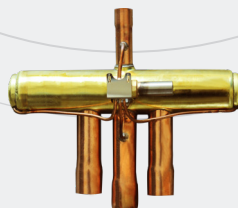
**Compressor**  
Panasonic Rotary Compressor



**Expansion valve**  
CAREL Electronic Expansion valve



**Water Pump**  
Grundfos



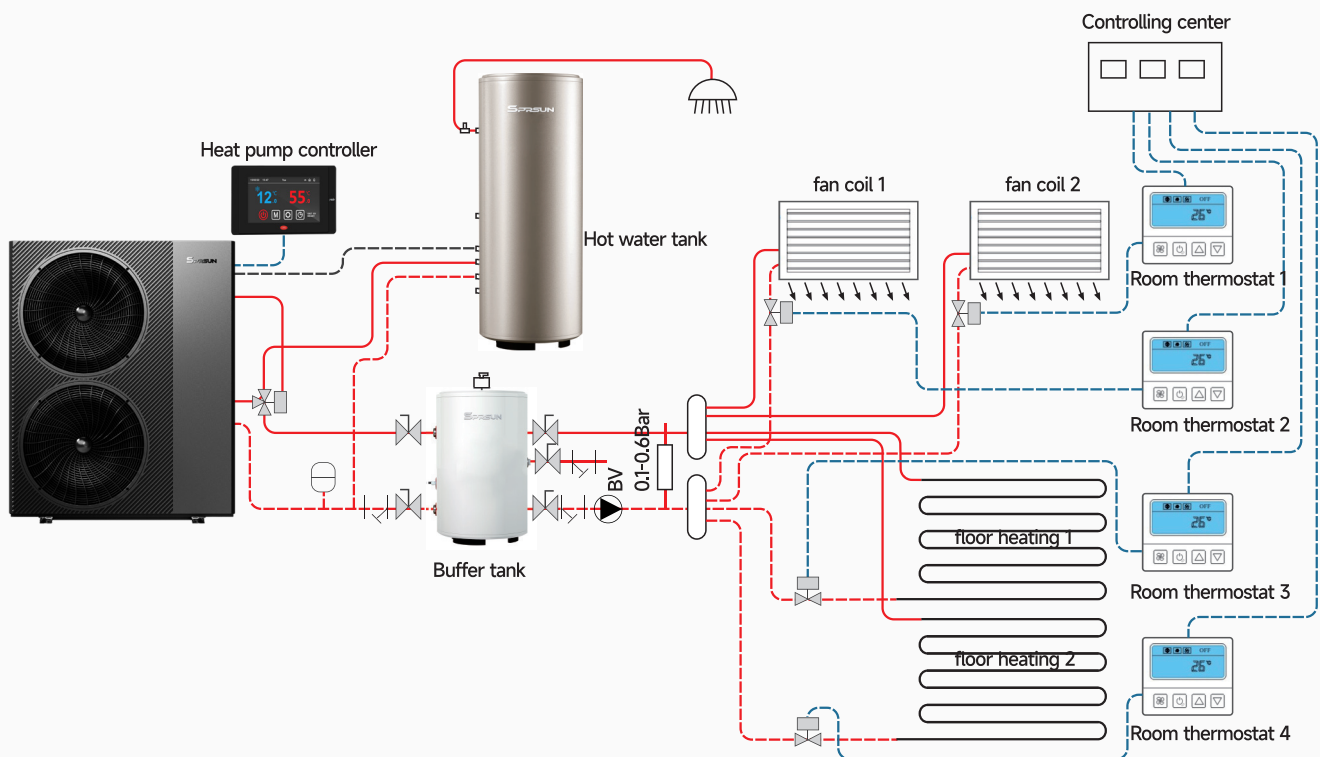
**4-way valve**  
SANHUA



# Installation Diagram

Notice:

1. Please select the right modes according to your demand, then install it according to the installation diagram. If only hot water function is required, please select heating+hot water mode and then put the hot water sensor into the hot water tank.
2. Two-way valve and BV valve are optional for installation. Only if you need to control the temperature in different zones, please install both.
3. Fan coil can be controlled by linkage with the secondary circulation pump. Meanwhile, a passive linkage thermostat shall be installed.



# Specifications



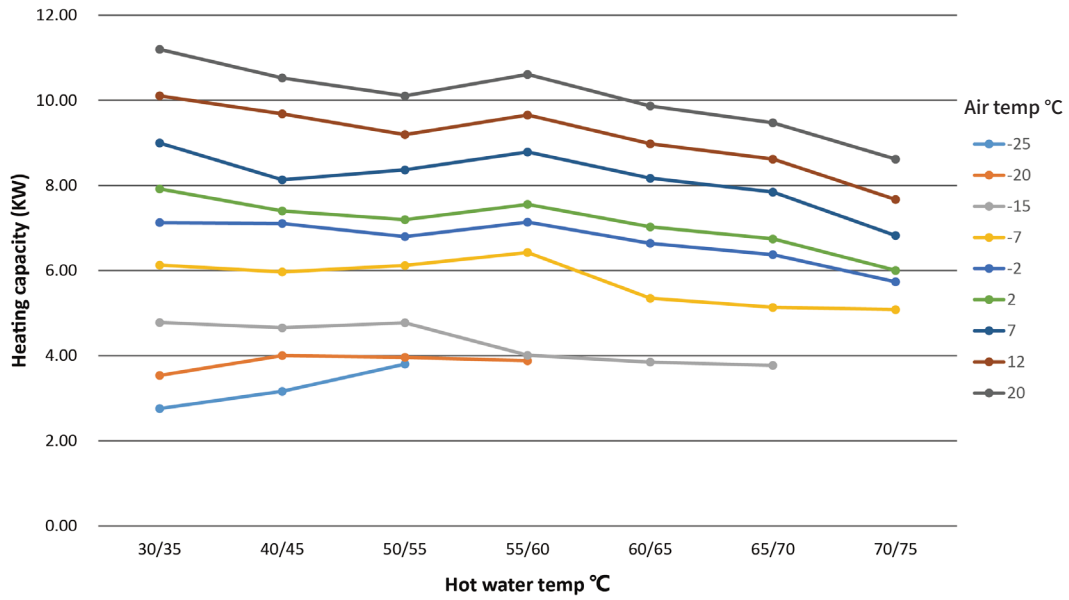
Model		CGK030V4P	CGK040V4P	CGK050V4P	CGK060V4P	CGK-030V4P	CGK-040V4P	CGK-050V4P	CGK-060V4P
Power Supply / Refrigerant	V/Hz/Ph	220-240/50/1 - R290				380-420/50/3 - R290			
<b>Heating condition: water inlet/outlet temperature: 30°C /35°C , Ambient temperature: DB 7°C /WB 6°C</b>									
Max. Heating Capacity	kW	9	11	15	18	9	11	15	18
C.O.P	W/W	4.41	4.43	4.45	4.46	4.42	4.42	4.41	4.46
Heating Capacity Min./Max.	kW	4.14 / 9.00	5.06 / 11.00	6.90 / 15.00	8.28 / 18.00	4.14 / 9.00	5.06 / 11.00	6.90 / 15.00	8.28 / 18.00
Heating Power Input Min./Max.	W	782 / 2041	952 / 2483	1292 / 3371	15247 / 4036	781 / 2036	954 / 2489	1304 / 3401	1547 / 4036
C.O.P Min./Max.	W/W	4.41 / 5.29	4.43 / 5.32	4.45 / 5.34	4.46 / 5.35	4.42 / 5.30	4.42 / 5.30	4.41 / 5.29	4.46 / 5.35
<b>Heating condition: water inlet/outlet temperature: 40°C /45°C , Ambient temperature: DB 7°C /WB 6°C</b>									
Max. Heating Capacity	kW	8.6	10.6	14.4	17.3	8.6	10.6	14.4	17.3
C.O.P	W/W	3.53	3.54	3.56	3.57	3.54	3.54	3.53	3.57
Heating Capacity Min./Max.	kW	3.97 / 8.64	4.86 / 10.56	6.62 / 14.40	7.95 / 17.28	3.97 / 8.64	4.86 / 10.56	6.62 / 14.40	7.95 / 17.28
Heating power input Min./Max.	W	988 / 2449	1202 / 2980	1632 / 4045	1954 / 4843	986 / 2443	1205 / 2986	1647 / 4082	1954 / 4843
C.O.P Min./Max.	W/W	3.53 / 4.02	3.54 / 4.04	3.56 / 4.06	3.57 / 4.07	3.54 / 4.03	3.54 / 4.03	3.53 / 4.02	3.57 / 4.07
<b>Cooling condition: water inlet/outlet temperature: 23°C /18°C , Ambient temperature: DB35°C /WB24°C</b>									
Max. Cooling Capacity	kW	8.2	10.0	13.7	16.4	8.2	10.0	13.7	16.4
E.E.R	W/W	3.42	3.44	3.45	3.46	3.43	3.43	3.42	3.46
Cooling Capacity Min./Max.	kW	3.78 / 8.21	4.61 / 10.03	6.29 / 13.68	7.55 / 16.42	3.78 / 8.21	4.61 / 10.03	6.29 / 13.68	7.55 / 16.42
Cooling Power Input Min./Max.	W	958 / 2398	1166 / 2918	1582 / 3962	1894 / 4743	956 / 2393	1168 / 2925	1597 / 3997	1894 / 4743
E.E.R Min./Max.	W/W	3.42 / 3.94	3.44 / 3.96	3.45 / 3.98	3.46 / 3.99	3.43 / 3.95	3.43 / 3.95	3.42 / 3.94	3.46 / 3.99
<b>Cooling condition: water inlet/outlet temperature: 12°C /7°C , Ambient temperature: DB35°C /WB24°C</b>									
Max. Cooling Capacity	kW	5.8	7.1	9.6	11.6	5.8	7.1	9.6	11.6
E.E.R	W/W	2.74	2.75	2.76	2.77	2.74	2.74	2.74	2.77
Cooling Capacity Min./Max.	kW	2.66 / 5.79	3.25 / 7.08	4.44 / 9.65	5.33 / 11.58	2.66 / 5.79	3.25 / 7.08	4.44 / 9.65	5.33 / 11.58
Cooling Power Input Min./Max.	W	768 / 2114	934 / 2573	1268 / 3492	1518 / 4181	766 / 2110	936 / 2578	1280 / 3524	1518 / 4181
E.E.R Min./Max.	W/W	2.74 / 3.47	2.75 / 3.48	2.76 / 3.50	2.77 / 3.51	2.74 / 3.48	2.74 / 3.48	2.74 / 3.47	2.77 / 3.51
Max Power Input	kW	3.06	3.72	5.06	6.05	3.05	3.73	5.1	6.05
Max Current	A	14.65	17.82	24.19	28.97	6.45	7.88	10.77	12.78
Wire diameter	mm <sup>2</sup>	4	6	6	6	2.5	2.5	4	4
Fuses or circuit breakers	A	25A	32A	40A	40A	13A	16A	20A	20A
Sound Pressure (1m)	dB(A)	46	46	46	46	47	46	46	47
Sound power Level	dB(A)	60	60	60	60	61	60	60	61
CO2 Equivalent	Ton	0.00264	0.0033	0.00396	0.00462	0.00264	0.0033	0.00396	0.00462
ErP Level(35° C)	/	A+++							
Cabinet Type	/	Weather-resistant pp+Galanizedsheet metal+ASA							
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
Packing Dimension(L×D×H)	mm	1165*490*960	1165*490*1100	1165*490*1520	1165*490*1520	1165*490*960	1165*490*1100	1165*490*1520	1165*490*1520
Packing Dimension(L×D×H)	mm	1200*540*970	1200*540*1120	1200*540*1510	1200*540*1510	1220*540*970	1200*540*1120	1200*540*1510	1200*540*1510
Net Weight	kg	88	105	124	124	88	105	124	124
Gross Weight (Cardboard case)	kg	105	120	150	150	105	120	150	150
Gross Weight (Plywood case )	kg	116	126	161	161	116	126	161	161



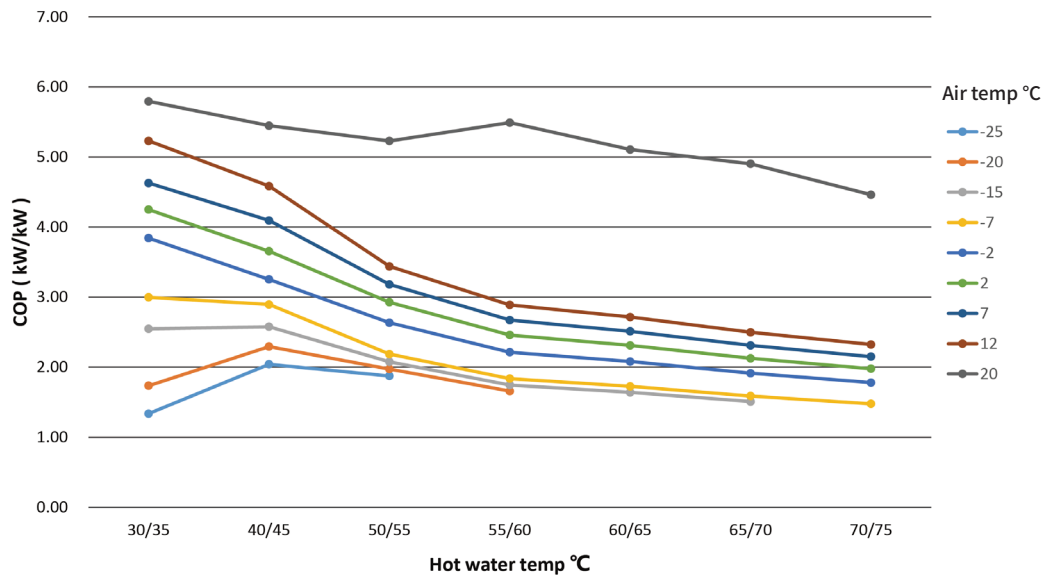


# Heating Capacity at Different Conditions

## CGK030V4P/CGK-030V4P Heating capacity

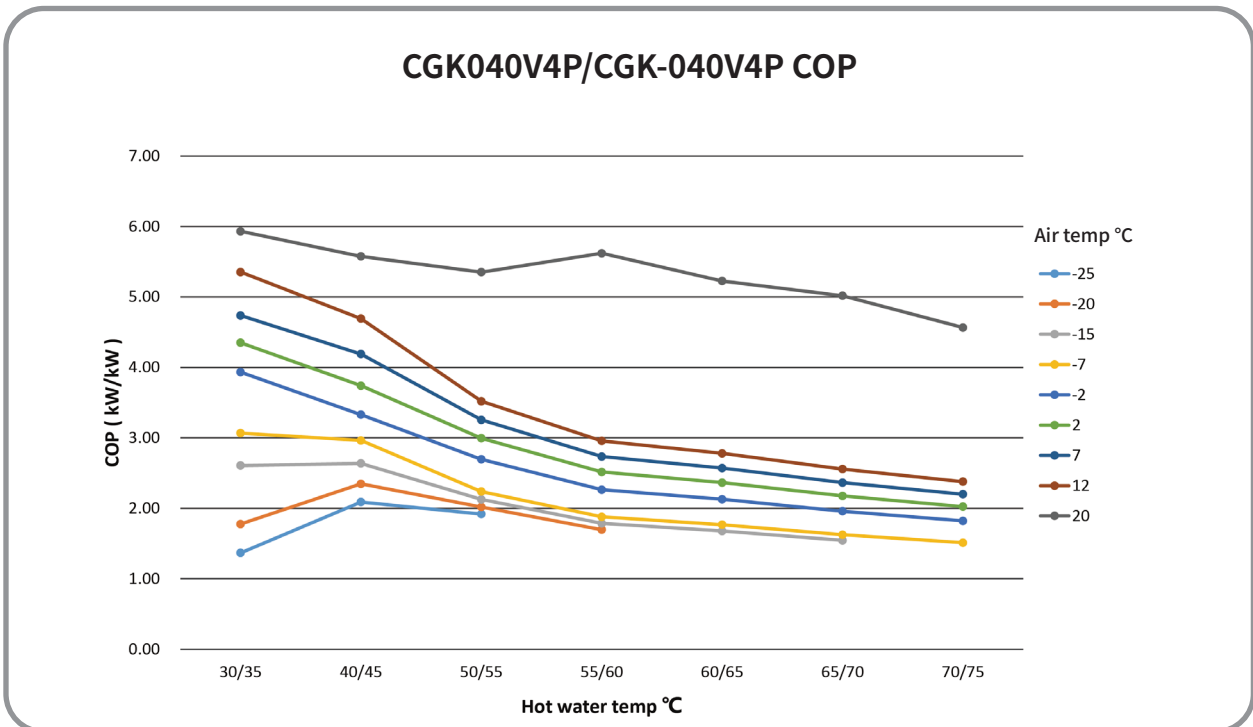
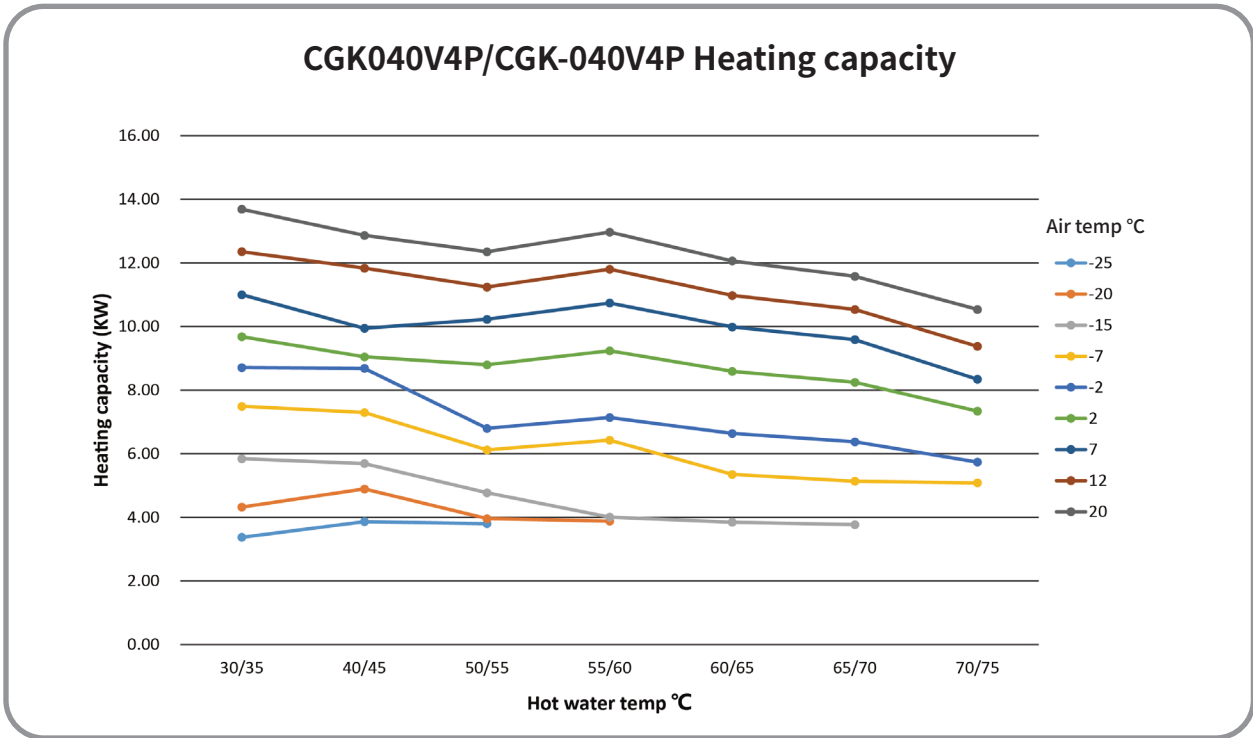


## CGK030V4P/CGK-030V4P COP



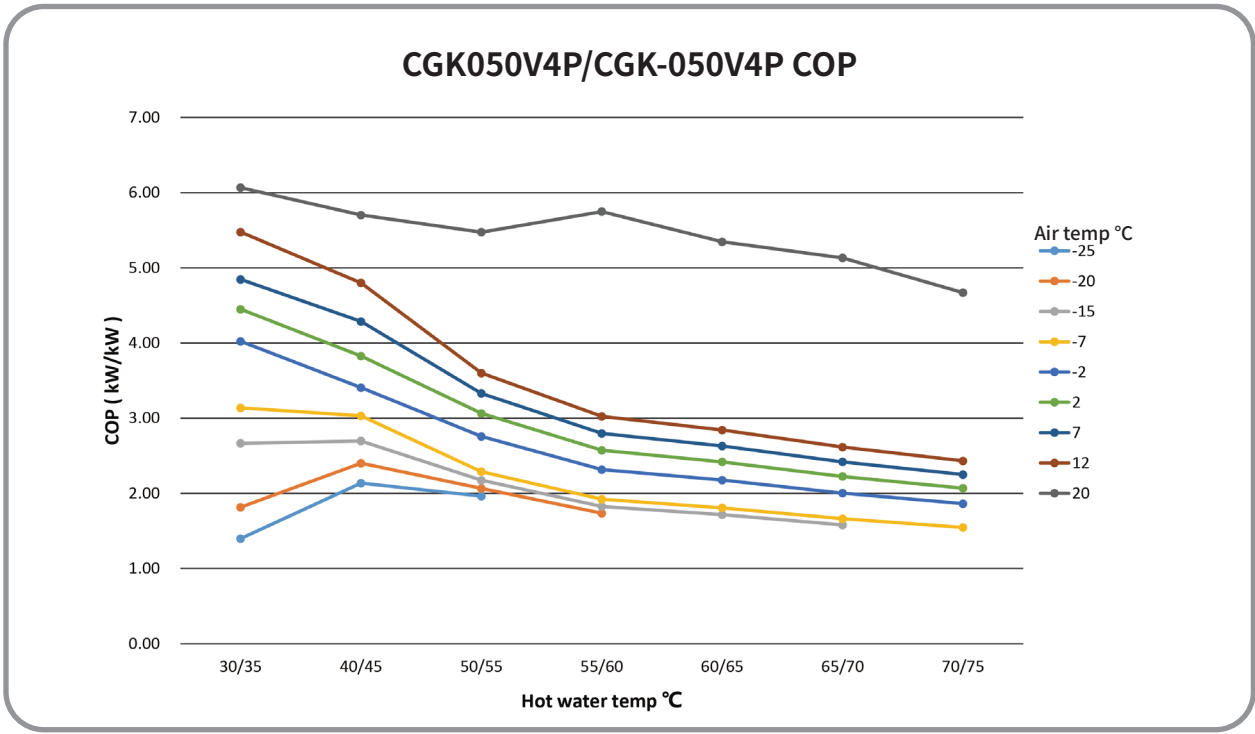
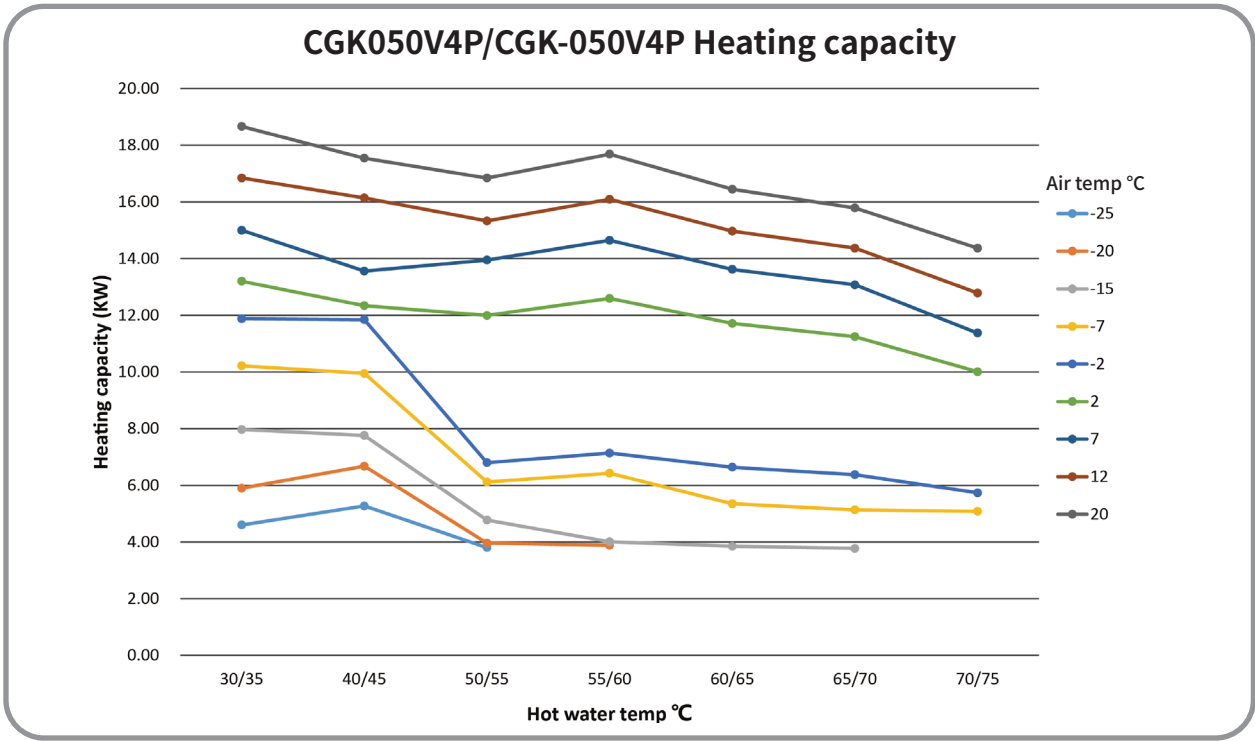
# CGK040V4P/CGK-040V4P

## Heating Capacity at Different Conditions



# CGK050V4P/CGK-050V4P

## Heating Capacity at Different Conditions



# CGK060V4P/CGK-060V4P

## Heating Capacity at Different Conditions

