

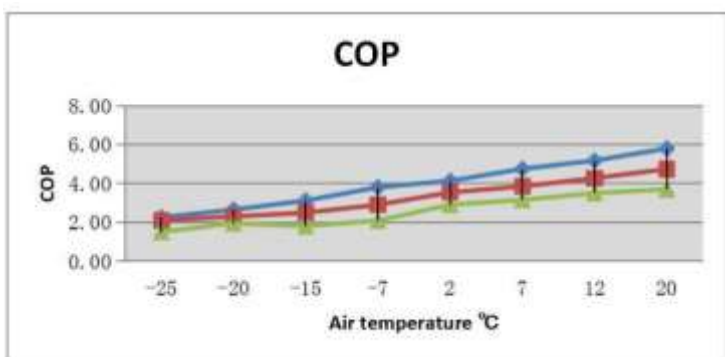
Unit Name		DC Inverter Air Source Heat Pumps (ambient working :-25C to 45C)																						
Setting range:		(Heating: 30℃~55℃; Cooling: 32℃~12℃)																						
Model		CGK030V3L			CGK050V3L			CGK060V3L			CGK-030V3L			CGK-050V3L			CGK-060V3L							
Power Supply / Refrigerant		V/Hz/P		220-240/50/1 - R32									380-420/50/3 - R32											
Max. Heating Capacity (1)		kW		12			20			22			12			20			22					
C.O.P (1)		W/W		4.45			4.75			4.62			4.45			4.76			4.65					
Heating Capacity Min./Max.(1)		kW		5.52 / 12			9.2 / 20			10.12 / 22			5.52 / 12			9.2 / 20			10.12 / 22					
Heating Power Input Min./Max.(1)		W		992 / 2697			1549 / 4211			1752 / 4762			992 / 2697			1546 / 4202			1741 / 4731					
C.O.P Min./Max.(1)		W/W		4.45 / 5.56			4.75 / 5.94			4.62 / 5.78			4.45 / 5.56			4.76 / 5.95			4.65 / 5.81					
Max. Heating Capacity(2)		kW		11.5			19.2			21.1			11.5			19.2			21.1					
C.O.P (2)		W/W		3.60			3.85			3.70			3.60			3.81			3.60					
Heating Capacity Min./Max.(2)		kW		5.30 / 11.52			8.83 / 19.20			9.72 / 21.12			5.30 / 11.52			8.83 / 19.20			9.72 / 21.12					
Heating power input Min./Max.(2)		W		1254 / 3236			1957 / 5053			2214 / 5714			1254 / 3236			1953 / 5042			2199 / 5677					
C.O.P Min./Max.(2)		W/W		3.56 / 4.23			3.80 / 4.51			3.70 / 4.39			3.56 / 4.23			3.81 / 4.52			3.72 / 4.42					
Max. Cooling Capacity(3)		kW		10.9			18.2			20.1			10.9			18.2			20.1					
E.E.R (3)		W/W		3.50			3.73			3.59			3.50			3.69			3.50					
Cooling Capacity Min./Max.(3)		kW		5.03 / 10.94			8.39 / 18.24			9.23 / 20.06			5.03 / 10.94			8.39 / 18.24			9.23 / 20.06					
Cooling Power Input Min./Max.(3)		W		1215 / 3704			1897 / 5783			2146 / 6540			1215 / 3704			1893 / 5771			2132 / 6498					
E.E.R Min./Max.(3)		W/W		2.95 / 4.14			3.15 / 4.42			3.07 / 4.30			2.95 / 4.14			3.16 / 4.43			3.09 / 4.33					
Max. Cooling Capacity(4)		kW		8.6			14.4			15.8			8.6			14.4			15.8					
E.E.R(4)		W/W		2.62			2.80			2.69			2.62			2.77			2.62					
Cooling Capacity Min./Max.(4)		kW		3.97 / 8.64			6.62 / 14.40			7.29 / 15.84			3.97 / 8.64			6.62 / 14.40			7.29 / 15.84					
Cooling Power Input Min./Max.(4)		W		1090 / 3440			1702 / 5371			1925 / 6075			1090 / 3440			1699 / 5360			1913 / 6036					
E.E.R Min./Max.(4)		W/W		2.51 / 3.65			2.68 / 3.89			2.61 / 3.79			2.51 / 3.65			2.69 / 3.90			2.62 / 3.81					
Rated Current		A		12.9			20.1			22.8			5.7			8.9			10.0					
Max Power Input		kW		3.9			6.1			6.9			3.9			6.1			6.9					
Max Current		A		18.71			29.21			33.04			8.25			12.86			14.48					
Compressor		Type - Quantity/System		Twin Rotary - 1			Twin Rotary - 1			Twin Rotary - 1			Twin Rotary - 1			Twin Rotary - 1			Twin Rotary - 1					
Fan		Quantity		1			2			2			1			2			2					
		Airflow		m3/h			3000			5000			5500			3000			5000			5500		
		Rated power		W			100			200			210			100			200			210		
Water Side Heat Exchanger		Type		Plate Heat Exchanger																				
		Water Pressure Drop		kPa		20			23			25			20			23			25			
		Piping Connection		Inch			G1"			G1"			G1"			G1"			G1"			G1"		
Allowable Water Flow		Min./Rated./Max.		L/S		0.36	0.57	0.96	0.60	0.96	1.59	0.66	1.05	1.75	0.36	0.57	0.96	0.60	0.96	1.59	0.66	1.05	1.75	
Noise Level		dB(A)		59			61			62			59			61			62					
Net Dimension(LxDxH)		mm		1110*475*810			1110*475*1355			1110*475*1355			1110*475*810			1110*475*1355			1110*475*1355					
Packing Dimension(LxDxH)		mm		1220*540*970			1220*540*1400			1220*540*1400			1220*540*970			1220*540*1400			1220*540*1400					
Net Weight/ Gross weight		Kg		88/116			124/161			124/161			88/116			124/161			124/161					

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



Heating Capacity at Different Conditions

Model	CGK030V3L			CGK050V3L			CGK060V3L			CGK-030V3L			CGK-050V3L			CGK-060V3L		
Air temp °C	Heating capacity (KW)			Heating capacity (KW)			Heating capacity (KW)			Heating capacity (KW)			Heating capacity (KW)			Heating capacity (KW)		
-25	4.56	4.35	4.95	7.34	6.99	8.25	8.37	7.97	9.08	4.56	4.35	4.95	7.61	7.25	8.25	8.37	7.97	9.08
-20	7.89	6.69	6.97	12.69	10.75	11.62	14.47	12.26	12.79	7.89	6.69	6.97	13.15	11.15	11.62	14.47	12.26	12.79
-15	9.62	8.16	8.30	15.48	13.11	13.84	17.65	14.95	15.22	9.62	8.16	8.30	16.04	13.59	13.84	17.65	14.95	15.22
-7	9.88	9.60	9.77	16.47	15.99	16.28	18.12	17.59	17.91	9.88	9.60	9.77	16.47	15.99	16.28	18.12	17.59	17.91
2	11.63	11.29	11.49	19.00	18.82	19.15	21.32	20.70	21.07	11.63	11.29	11.49	19.38	18.82	19.15	21.32	20.70	21.07
7	12.00	11.52	12.10	20.00	19.20	20.16	22.00	21.12	22.18	12.00	11.52	12.10	20.00	19.20	20.16	22.00	21.12	22.18
12	12.60	12.10	12.70	21.00	20.16	21.17	23.10	22.18	23.28	12.60	12.10	12.70	21.00	20.16	21.17	23.10	22.18	23.28
20	13.23	12.70	13.34	22.05	21.17	22.23	24.26	23.28	24.45	13.23	12.70	13.34	22.05	21.17	22.23	24.26	23.28	24.45
Hot water temp °C	30/35	40/45	50/55	30/35	40/45	50/55	30/35	40/45	50/55	30/35	40/45	50/55	30/35	40/45	50/55	30/35	40/45	50/55



Air temp °C	COP kW/kW		
-25	2.25	2.09	1.50
-20	2.65	2.30	1.95
-15	3.12	2.50	1.80
-7	3.80	2.90	2.09
2	4.13	3.54	2.90
7	4.75	3.85	3.15
12	5.18	4.27	3.50
20	5.80	4.74	3.70
Hot water temp °C	35	45	55

Standard Materials



Controller
CAREL Controller



Panasonic
Compressor
Panasonic Rotary
Compressor



Carel PCB



**AC Contactor and
Thermal Relay**
Schneider (Former Brand
is EATON)



Expansion Valve
CAREL Electronic
Expansion Valve



Plate heat exchanger

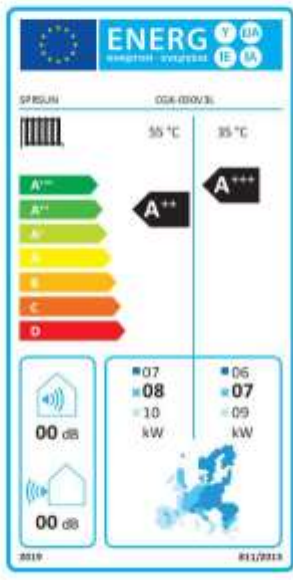
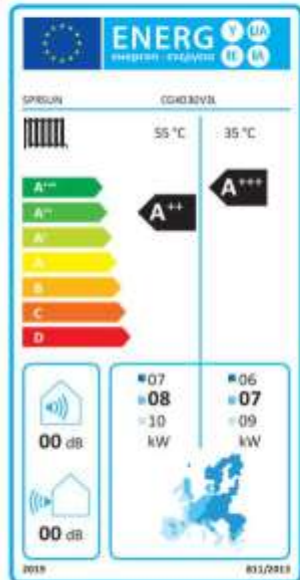


Pressure Sensor
CAREL Pressure Sensor

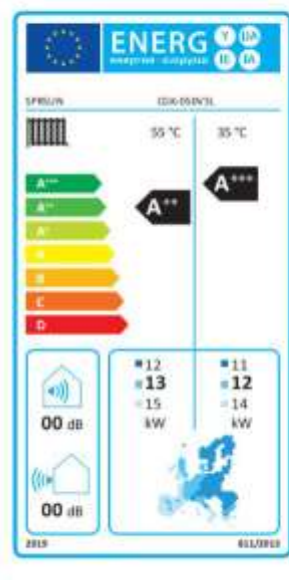
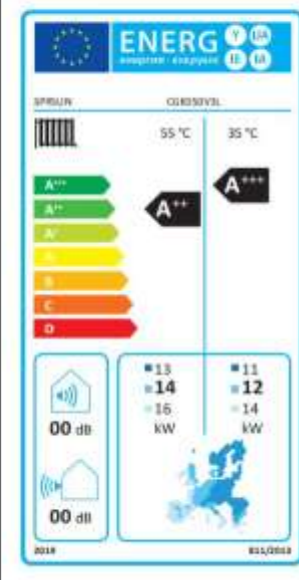


**High /low
pressure
sensor**

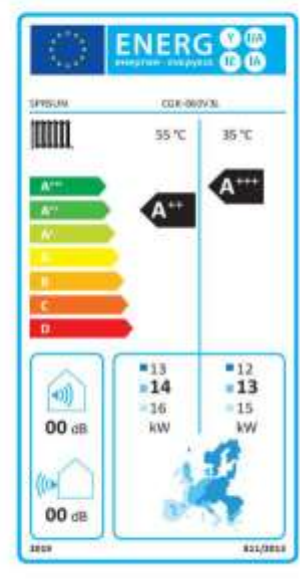
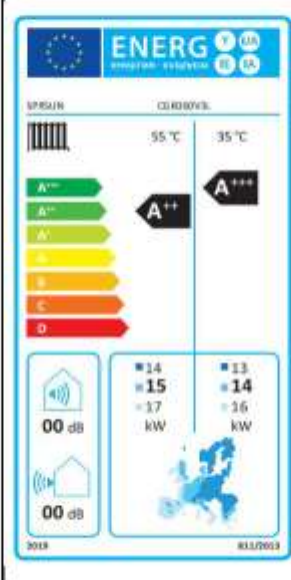
CGK030V3L/CGK-030V3L



CGK050V3L/CGK-050V3L

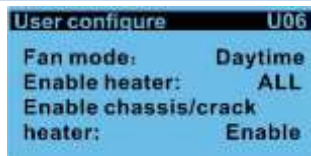


CGK060V3L/CGK-060V3L



Functions

U06 Fan mode(Night mode ,low speed , daytime , pressure) :



Carel controller

wifi app



- Pressure mode : test mode, the heat pump outputs according to the test capacity.
- Daytime mode : the compressor outputs according to the maximum capacity;
- Night mode: the heat pump has low output capacity from 8 pm to 8 am, and high output at other times; (Lower noise and energy saving)

- Low speed mode : economic mode, the heat pump can automatically output capacity as required according to the ambient temperature; (Energy saving) , setting is as below :

	Ambient temp	Compressor maximum frequency (rpm)
Heating/Hot water	9<AmbTemp	50
	8<AmbTemp<=9	60
	-3< AmbTemp <=4	60
	-9<AmbTemp<=-3	65
	-15<AmbTemp<=-9	65
	AmbTemp<=-15	70
Cooling	38<AmbTemp	65
	33<AmbTemp<=38	65
	30<AmbTemp<=33	60
	26<AmbTemp<=30	60
	AmbTemp<=26	55

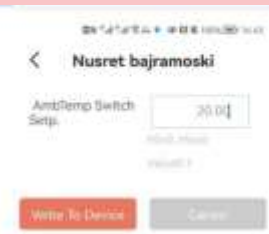
	Ambient temp		Water temperature set point	
Heating	X1	-10	Y1	45
	X2	0	Y2	40
	X3	10	Y3	35
	X4	20	Y4	30
Cooling	X1	20	Y1	15
	X2	25	Y2	15
	X3	30	Y3	12
	X4	35	Y4	12
Hot water	X1	0	Y1	50
	X2	10	Y2	50
	X3	20	Y3	45
	X4	30	Y4	45

Auto heating cooling -Ambtemp switch



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wifi app



Enable this function, the unit will automatically switch to heating or hot water + heating if the ambient temperature is lower than the set value, and automatically switch to cooling or hot water + cooling if the ambient temperature is higher than the set value.

Modbus/RS485

Our heat pump can support modbus controlling , and We can send you if you need the file

Wifi app

With this wifi app on the cellphone, you and your customer can monitor heat pump 's working and we can diagnose the problem if there is any errors , and we can make adjustment directly on the wifi app . All of your customer can be listed in the app .

