

SPECIFICATION / DATA



65°C

SPECIFICATION &
DATA SHEET

CGB RANGE
CONSTANT
TEMPERATURE
HEAT PUMPS

INNOVATION
SATISFACTION
INTEGRITY
INVOLVEMENT

GREENBRO 
ENDORSED BY NATURE®

65°C CGB RANGE



**“EXPERIENCE THE ECO-EFFICIENT
COMFORT OF GREENBRO HEAT
PUMP SOLUTIONS!”**

GREENBRO 

ENDORSED BY NATURE®

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CGB RANGE CONSTANT TEMPERATURE HEAT PUMPS

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OVERVIEW

WHAT SETS THE CGB RANGE APART?

The CGB Range Heat Pumps are versatile and efficient, making them suitable for a wide array of heating applications.

Their ability to maintain a constant temperature of up to 65°C, and their eco-friendly operation make them an excellent choice for both new installations and retrofits across various sectors.

INNOVATIVE FEATURES & BENEFITS



SUPERIOR QUALITY MATERIALS & COMPONENTS

Our heat pumps are manufactured using the highest standard of materials and components available in the industry. We prioritize quality at every stage of production, from sourcing materials to the assembly process, ensuring that each unit meets our stringent quality control measures.



SUSTAINABLE COMPRESSOR DESIGN

Our heat pumps feature a sustainable compressor design that maximizes energy efficiency while minimizing environmental impact. This design ensures reliable operation while reducing energy consumption, saving you money on utility bills.



CUTTING EDGE TECHNOLOGY THAT WILL SUITE ANY PROJECT

Our heat pumps are equipped with a new touchscreen controller that offers intuitive operation and advanced functionality. This controller is Wi-Fi enabled, allowing for remote access and control via smartphone or tablet. Additionally, our heat pumps are compatible with Building Management Systems (BMS), facilitating seamless integration into commercial and industrial environments.



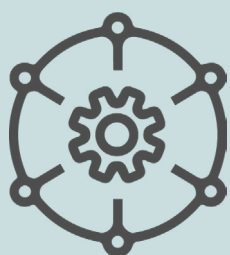
HIGH EFFICIENCY TUBE & SHELL HEAT EXCHANGER

Our range of heat pumps are engineered with a high-efficiency tube and shell heat exchanger, making it a durable and reliable solution for various heating applications, particularly in environments where corrosion, hard water, high pressure, and unexpected freezes are common concerns. This design maximizes heat transfer efficiency and overall performance, resulting in faster heating times, improved system reliability, and reduced operating costs.

INNOVATIVE FEATURES & BENEFITS

GREENBRO CGB RANGE HEAT PUMPS

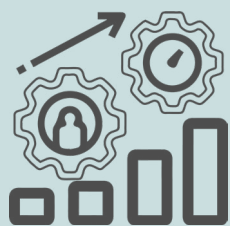
THE IDEAL SOLUTION FOR ANY APPLICATION



UNRIVALED VERSATILITY

Whether it's residential, commercial, or industrial, the Greenbro CGB Range caters to every heating requirement with ease.

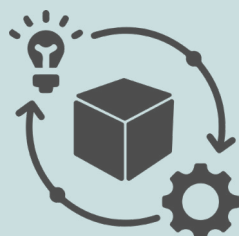
From heating water for domestic use to large-scale facilities, our heat pumps adapt seamlessly to various applications, providing consistent and dependable performance across the board.



PERFORMANCE

Meticulously engineered to excel across diverse applications our CGB Range is designed to prioritize safety, efficiency, and reliability. With a maximum water temperature setpoint of 65°C, offering versatility and performance for a wide array of heating needs.

Our CGB Range is engineered for maximum energy efficiency, helping reduce operational costs and environmental impact.



SLEEK DESIGN

Our heat pumps boast compact and versatile dimensions, making them suitable for various installation scenarios.

Whether you're working with limited space or seeking to optimize layout efficiency in a commercial or industrial facility, Greenbro heat pumps offer flexibility without compromising on performance.

With dimensions tailored for ease of installation and maintenance, our heat pumps adapt effortlessly to diverse requirements, ensuring hassle-free integration into any space.

The sleek and modern design of our heat pumps sets them apart from traditional heating equipment. Featuring clean lines, smooth surfaces, and a charcoal grey finish, our heat pumps enhance the visual appeal of their surroundings, adding a touch of contemporary flair to the environment.

INNOVATIVE FEATURES & BENEFITS

SMART TOUCH SCREEN CONTROLLER CAPABILITIES

WI-FI ENABLED: Connect to Smart App via your mobile device.

BMS COMPATABLE: BMS functionality included.

END USER INTERFACE:

- On/Off,
- Timer Control,
- Temperature Setpoint,
- Error Status Information,
- Error Log History Display,
- Ambient Temperature,
- Exhaust Air Temperature,
- Suction Temperature,
- Delivery Temperature,
- Compressor/Fan/Circulation Pump Run/Stop Status,
- Bluetooth connectivity to smartphone,
- BMS Configuration and Master/Slave Duplexing,

BMS INTERFACE:

- Read/Write - ON/OFF,
- Read/Write - Setpoint Temperature,
- Read Only: Error Status,
- Ambient Temperature,
- Exhaust Air Temperature,
- Suction Temperature,
- Delivery Temperature,
- HPCP - Runn Stop and Fan Run/Stop)

CASING OPTIONS

STANDARD CASING

Our heat pump casing is meticulously crafted to ensure durability and resistance to rust, employing a multi-step process to provide long-lasting protection. Constructed from 1.2-1.5mm galvanized plate, our casing boasts a robust foundation.

The galvanized plate undergoes a meticulous zinc coating application, with a targeted thickness ranging between 60-80 microns. This initial layer serves as a formidable barrier against corrosion. Following the zinc application, an anti-rust paint is skillfully sprayed, adding an additional 40-60 microns to enhance the casing's defense mechanisms.

To complete the protective ensemble, a second round of spraying is executed with our distinct dark grey color, contributing an additional 50-60 microns. This final coating not only serves an aesthetic purpose but also reinforces the casing's resilience against environmental elements.

Our comprehensive spray process not only delivers a visually appealing dark grey finish but, more importantly, ensures the heat pump casing's steadfast resistance to rust, thereby prolonging its service life and ensuring optimal performance even in challenging conditions.

STAINLESS STEEL 304

Stainless steel is renowned for its exceptional durability and resistance to corrosion, making it an ideal choice for applications where environmental factors may pose challenges. The 304 stainless steel casing ensures that our heat pumps remain robust and reliable, even in demanding conditions, providing long-lasting performance and peace of mind to our customers.

STAINLESS STEEL 316

This 316 stainless steel is renowned for its superior corrosion resistance, particularly in harsh environments where exposure to moisture, chemicals, and other corrosive elements is prevalent. The exceptional strength and durability of 316 stainless steel make it an ideal choice for applications where structural integrity is paramount.

CGB RANGE / 20.0kW - 40.0kW Constant Temperature Heat Pump Specification

OPERATIONAL DATA							
		CGB-020-S		CGB-034-S		CGB-040-S	
OPERATING DATA	Heating Capacity	kW	20	34	40		
	Power	Power Supply	Ph-V-Hz	380V/3PH/50HZ		380V/3PH/50HZ	
		Rated Input Consumption	kW	4.9	8.3	9.8	
		Max Input Consumption	kW	6.86	11.62	13.72	
		Rated Input Current	A	8.77	14.85	17.54	
		Max Input Current	A	12.28	20.79	24.55	
		Starting Current	A	58	60	70	
		COP	W/W	4.08	4.10	4.08	
	Max Water Temp Setpoint	°C	65	65	65		
	Max Outlet Water Temp	°C	65	65	65		
Hot Water Yield	L/h	430	731	860			
Recommended Water Flow	m³/h	4.3	7.3	8.6			
Working Temp (Ambient)	°C	-10°C~43°C		-10°C~43°C		-10°C~43°C	

GENERAL & PARTS DATA							
		CGB-020-S		CGB-034-S		CGB-040-S	
Compressor	Model		ZW72KA-TPF-52E	ZW61KA-TPF-52E	ZW72KA-TPF-52E		
	Type / Brand		Scroll / Copeland	Scroll / Copeland	Scroll / Copeland		
	Compressor Qty	PCS	1	2	2		
	Capacity	kW	17.6	14.9	17.6		
	Locked Rotor Amp	A	58	52	58		
	Thermal Protector		Inner	Inner	Inner		
	Capacitor	µF	None	None	None		
Fan Motor	Model		YDK-160G-6 / HELONG	YDK-160G-6 / HELONG	YDK-160G-6 / HELONG		
	Input	W	320	320	320		
	Capacitor	µF	10	10	10		
	Speed	r/min	800/500	800/500	800/500		
	Diameter of Fans	mm	556	556	556		
	Air Flow	m³/h	7000	7000	7000		
	Fan Motor Qty	PCS	1	2	2		
Heat Exchanger	Type		Copper Tube in Shell	Copper Tube in Shell	Copper Tube in Shell		
	Qty	PCS	1	2	2		
	Model		7P	6P	7P		
	Diameter of Copper Pipe	mm	19	19	19		
Evaporator	Number of Rows		2	2	2		
	Tube Pitch(a)x Row Pitch(b)	mm	25x22	25x22	25x22		
	Fin Spacing	mm	1.8	1.8	1.8		
	Fin Type		Hydrophilic Aluminum	Hydrophilic Aluminum	Hydrophilic Aluminum		
	Tube Outer Diameter & Type	mm	Ø9.52 Innergroove Tube	Ø9.52 Innergroove Tube	Ø9.52 Innergroove Tube		
	Coil Length x Width x Height	mm	1609x38x900	2 x 1082x44x1000	2 x 1082x44x1200		
Four-Way Valve	Model / Brand		STF-0408G / Saginomiya	STF-0408G / Saginomiya	STF-0408G / Saginomiya		
	Model / Brand		3TF3300-0X/AC220V/ Siemens	3TF3300-0X/AC220V/ Siemens	3TF3300-0X/AC220V/ Siemens		
Expansion Device	Type		Thermostatic Expansion Valve	Thermostatic Expansion Valve	Thermostatic Expansion Valve		
	Model / Brand		TCBE-2 (068U4202) / Danfoss	TCBE-1 (068U4201) / Danfoss	TCBE-2 (068U4202) / Danfoss		
Wire Controller	Type		Intelligent Touch Screen	Intelligent Touch Screen	Intelligent Touch Screen		
	Part Number		O01T0089	O01T0089	O01T0089		
	The Length of Control Cable	m	12	12	12		
	Set Temp.	°C	30~65	30~65	30~65		
Water System	Materials of Water Pipe		Copper	Copper	Copper		
	Water Flow	m³/h	4.3	7.3	8.6		
	Water Pressure Differential	Kpa	55	55	55		
	Water Inlet Connection Size	mm	DN25 / Female	DN40 / Female	DN40 / Female		
	Water Outlet Connection Size	mm	DN25 / Female	DN40 / Female	DN40 / Female		
Refrigerant HP & LP	Mpa	2.85/0.02	2.85/0.02	2.85/0.02			
Refrigerant	Gas Type		(R417A)	(R417A)	(R417A)		
	Gas Weight	g	1 x 3400g	2 x 2700g	2 x 2700g		
Sound Pressure Level	dB(A)	57	60	61			
Dimensions	Dimension(L*W*H)	mm	752x690x965	1450x702x1060	1450x702x1260		
	Packing(L*W*H)	mm	840x750x1100	1525x805x1220	1525x805x1420		
	NG/WG	kg	139/157	249/294	268/316		



CGB-020-S



CGB-034-S



CGB-040-S

CGB RANGE / 50.0kW - 105kW Constant Temperature Heat Pump Specification



OPERATIONAL DATA										
		CGB-050-S		CGB-060-S		CGB-070-V		CGB-105-V		
OPERATING DATA	Heating Capacity	kW	50	60	70	105				
	Power	Power Supply	Ph-V-Hz	380V/3PH/50HZ	380V/3PH/50HZ	380V/3PH/50HZ	380V/3PH/50HZ			
		Rated Input Consumption	kW	12.4	15	17.3	25.7			
		Max Input Consumption	kW	17.36	21.00	24.22	35.98			
		Rated Input Current	A	22.19	26.84	30.96	45.99			
		Max Input Current	A	31.07	37.58	43.34	64.39			
		Starting Current	A	90	100	130	200			
	COP	W/W	4.03	4.00	4.05	4.09				
	Max Water Temp Setpoint	°C	65	65	65	65				
	Max Outlet Water Temp	°C	65	65	65	65				
Hot Water Yield	L/h	1075	1290	1505	2257					
Recommended Water Flow	m³/h	10.7	12.9	15.0	22.6					
Working Temp (Ambient)	°C	-10°C~43°C	-10°C~43°C	-10°C~43°C	-10°C~43°C					

GENERAL & PARTS DATA									
		CGB-050-S		CGB-060-S		CGB-070-V		CGB-105-V	
Compressor	Model		ZW61KA-TPF-52E	ZW72KA-TPF-52E	ZW125KA-TPF-522	VR190KS-TPF-522			
	Type / Brand		Scroll / Copeland	Scroll / Copeland	Scroll / Copeland	Scroll / Copeland			
	Compressor Qty	PCS	3	3	2	2			
	Capacity	kW	14.9	17.6	30.6	45.6			
	Locked Rotor Amp	A	52	58	100	150			
	Thermal Protector		Inner	Inner	Inner	Inner			
	Capacitor	µF	None	None	None	None			
	Fan Motor	Model		YDK-160G-6 / HELONG	YDK-160G-6 / HELONG	YWF.A6T-630S-5DIII500/DUNLI	YWF.A6T-710S-7F1IIS10/DUNLI		
	Input	W	320	320	500	/			
	Capacitor	µF	10	10	/	1000			
	Speed	r/min	800/500	800/500	900	None			
	Diameter of Fans	mm	556	556	630	900			
	Air Flow	m³/h	7000	7000	10800	710			
	Fan Motor Qty	PCS	3	3	2	13500			
						2			
Heat Exchanger	Type		Copper Tube in Shell	Copper Tube in Shell	Copper Tube in Shell	Copper Tube in Shell			
	Qty	PCS	2	2	2	2			
	Model		6P	7P	12	15			
	Diameter of Copper Pipe	mm	19	19	2 x 25.4	2 x 25.4			
Evaporator	Number of Rows		3	3	2	3			
	Tube Pitch(a)x Row Pitch(b)	mm	25x22	25x22	25x22	25x22			
	Fin Spacing	mm	1.8	1.8	2.2	2.2			
	Fin Type		Hydrophilic Aluminum	Hydrophilic Aluminum	Hydrophilic Aluminum	Hydrophilic Aluminum			
	Tube Outer Diameter & Type	mm	Ø9.52 Innergroove Tube	Ø9.52 Innergroove Tube	Ø9.52 Innergroove Tube	Ø9.52 Innergroove Tube			
	Coil Length x Width x Height	mm	3 x 935x44x1200	3 x 935x44x1200	2 x 1740x66x1000	2 x 1740x66x1000			
Number of Circuits		21	21	2 x 9	2 x 10				
Four-Way Valve	Model / Brand		STF-0408G / Saginomiya	STF-0408G / Saginomiya	STF-0712G / Saginomiya	STF-1511G / Saginomiya			
AC Contactor	Model / Brand		3TF3300-0X/AC220V/ Siemens	3TF3300-0X/AC220V/ Siemens	3TF3400-0X/AC220V/ Siemens	3TF3500-0X/AC220V / Siemens			
Expansion Device	Type		Thermostatic Expansion Valve	Thermostatic Expansion Valve	Thermostatic Expansion Valve	Thermostatic Expansion Valve			
	Model / Brand		TCBE-1 (068U4201) / Danfoss	TCBE-2 (068U4202) / Danfoss	TGEL-11(067N2157) / Danfoss	TGEX-15(067N2161) / Danfoss			
Wire Controller	Type		Intelligent Touch Screen	Intelligent Touch Screen	Intelligent Touch Screen	Intelligent Touch Screen			
	Part Number		O01T0089	O01T0089	O01T0089	O01T0089			
	The Length of Control Cable	m	12	12	12	12			
	Set Temp.	°C	30~65	30~65	30~65	30~65			
Water System	Materials of Water Pipe		Copper	Copper	Copper	Copper			
	Water Flow	m³/h	10.7	12.9	15.0	22.6			
	Water Pressure Differential	Kpa	57	57	60	60			
	Water Inlet Connection Size	mm	DN50 / Female	DN50 / Female	DN50 / Female	DN50 / Female			
Water Outlet Connection Size	mm	DN50 / Female	DN50 / Female	DN50 / Female	DN50 / Female				
Refrigerant HP & LP		Mpa	2.85/0.02	2.85/0.02	2.85/0.02	2.85/0.02			
Refrigerant	Gas Type		(R417A)	(R417A)	(R417A)	(R417A)			
	Gas Weight	g	3 x 2700g	3 x 2700g	2 x 6200g	2 x 7200g			
Sound Pressure Level		dB(A)	62	63	68	71			
Dimensions	Dimension(L*W*H)	mm	2150x765x1290	2150x765x1290	2000x980x1960	2000x980x2060			
	Packing(L*W*H)	mm	2250x865x1450	2250x865x1450	2130x1100x1250	2130x1100x2260			
	NG/WG	kg	398/460	428/490	530/620	620/710			



CGB-050-S



CGB-060-S



CGB-070-V
CGB-105-V

CGB RANGE / 140kW - 210kW Constant Temperature Heat Pump Specification

OPERATIONAL DATA					
		CGB-140-V		CGB-210-V	
OPERATING DATA	Heating Capacity	kW	140	210	
	Power	Power Supply	Ph-V-Hz	380V/3PH/50HZ	380V/3PH/50HZ
		Rated Input Consumption	kW	34.6	51.4
		Max Input Consumption	kW	48.44	71.96
		Rated Input Current	A	61.92	91.98
		Max Input Current	A	86.68	128.78
		Starting Current	A	260	400
		COP	W/W	4.04	4.08
	Max Water Temp Setpoint	°C	65	65	
	Max Outlet Water Temp	°C	65	65	
Hot Water Yield	L/h	3010	4514		
Recommended Water Flow	m³/h	30.0	45.2		
Working Temp (Ambient)	°C	-10°C~43°C	-10°C~43°C		

GENERAL & PARTS DATA					
		CGB-140-V		CGB-210-V	
GENERAL & PARTS DATA	Compressor	Model	ZW125KA-TPF-522	VR190KS-TPF-522	
		Type / Brand	Scroll / Copeland	Scroll / Copeland	
		Compressor Qty	PCS	4	4
		Capacity	kW	61.2	91.2
		Locked Rotor Amp	A	200	300
		Thermal Protector		Inner	Inner
		Capacitor	µF	None	None
	Fan Motor	Model	YWF.A6T-630S-5DIIS00 / DUNLI	YWF.A6T-710S-7F1IIS10 / DUNLI	
		Input	W	500	1000
		Capacitor	µF	None	None
Speed		r/min	900	900	
Diameter of Fans		mm	630	710	
Air Flow		m³/h	10800	13500	
Fan Motor Qty		PCS	4	4	
Heat Exchanger	Type		Copper Tube in Shell	Copper Tube in Shell	
	Qty	PCS	2	2	
	Model		12	15	
Evaporator	Diameter of Copper Pipe	mm	4 x 25.4	4 x 25.4	
	Number of Rows		2	3	
	Tube Pitch(a)x Row Pitch(b)	mm	25x22	25x22	
	Fin Spacing	mm	2.2	2.2	
	Fin Type		Hydrophilic Aluminum	Hydrophilic Aluminum	
	Tube Outer Diameter & Type	mm	Ø9.52 Innergroove Tube	Ø9.52 Innergroove Tube	
	Coil Length x Width x Height	mm	2 x 1740x66x900	2 x 1740x66x1000	
Four-Way Valve	Number of Circuits		4 x 9	4 x 10	
	Model / Brand		STF-0712G / Saginomiya	STF-1511G / Saginomiya	
AC Contactor	Model / Brand		3TF3400-0X/AC220V / Siemens	3TF3500-0X/AC220V / Siemens	
Expansion Device	Type		Thermostatic Expansion Valve	Thermostatic Expansion Valve	
	Model / Brand		TGEL-11(067N2157) / Danfoss	TGEX-15(067N2161) / Danfoss	
Wire Controller	Type		Intelligent Touch Screen	Intelligent Touch Screen	
	Part Number		O01T0089	O01T0089	
	The Length of Control Cable	m	12	12	
	Set Temp.	°C	30~65	30~65	
Water System	Materials of Water Pipe		Copper	Copper	
	Water Flow	m³/h	30.0	45.2	
	Water Pressure Differential	Kpa	60	60	
	Water Inlet Connection Size	mm	DN80 / Female	DN80 / Female	
Refrigerant HP & LP	Water Outlet Connection Size	mm	DN80 / Female	DN80 / Female	
		Mpa	3.0/0.02	2.85/0.02	
Refrigerant	Gas Type		(R417A)	(R417A)	
	Gas Weight	g	4 x 6200g	4 x 7200g	
Sound Pressure Level		dB(A)	72	73	
Dimensions	Dimension(L*W*H)	mm	2000x2160x2230	2000x2160x2335	
	Packing(L*W*H)	mm	2090x2350x2360	2100x2290x2460	
	NG/WG	kg	1040/1120	1040/1120	

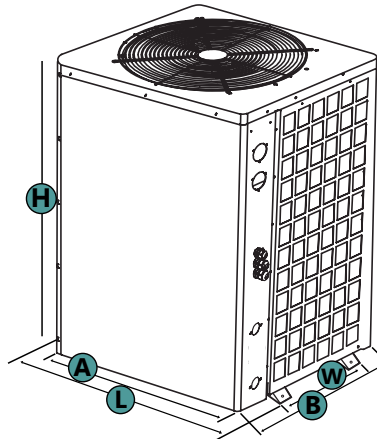


CGB-140-V
CGB-210-V

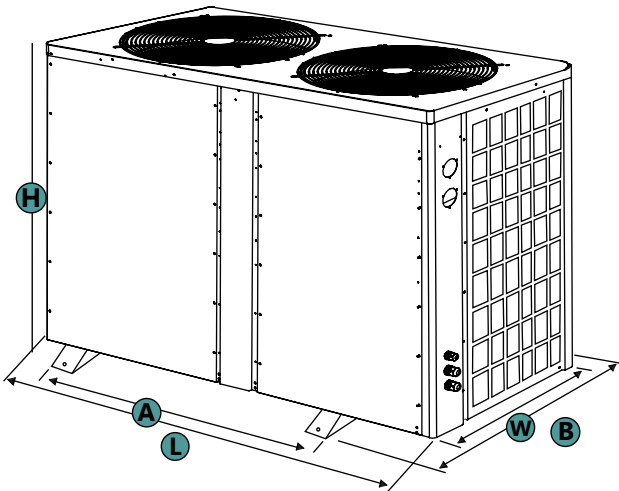
DIMENSIONAL DATA

CGB CONSTANT TEMPERATURE RANGE
20.0kW - 60.0kW

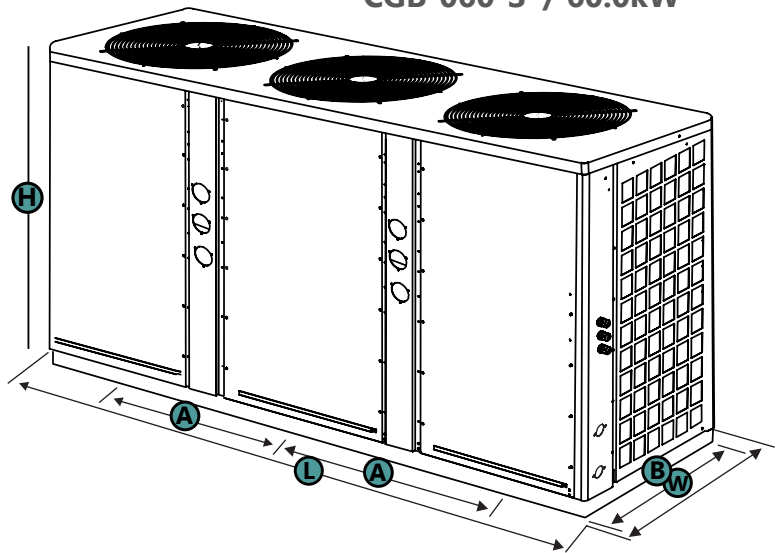
CGB-020-S / 20.0kW



CGB-034-S / 34.0kW
CGB-040-S / 40.0kW



CGB-050-S / 50.0kW
CGB-060-S / 60.0kW

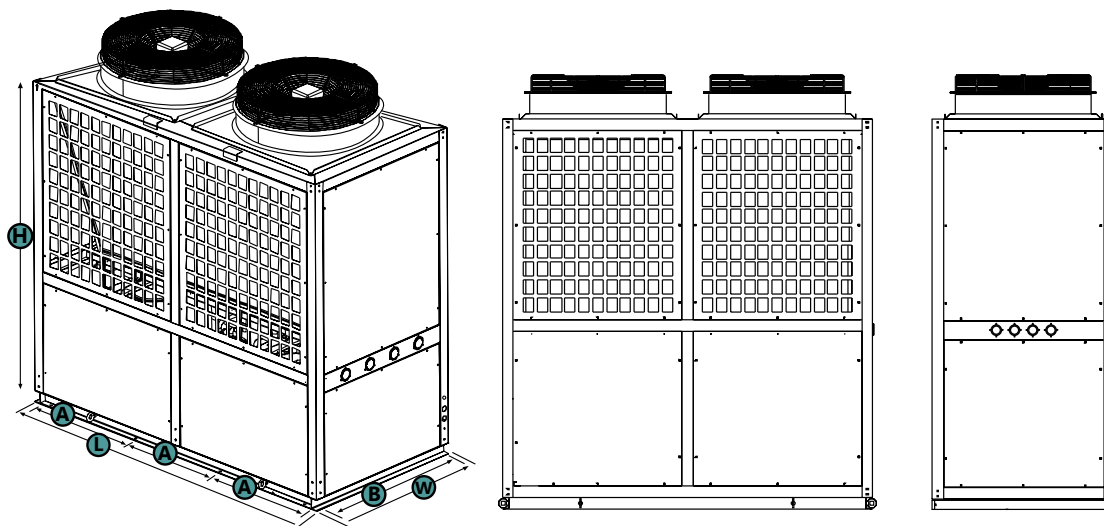


MODEL NUMBER	LENGTH (L)	WIDTH (W)	HIGHT (H)	(A)	(B)
CGB-020-S	752mm	690mm	965mm	470mm	785mm
CGB-034-S	1450mm	702mm	1060mm	755mm	708mm
CGB-040-S	1450mm	702mm	1260mm	755mm	708mm
CGB-050-S	2150mm	765mm	1290mm	757.5mm	680mm
CGB-060-S	2150mm	765mm	1290mm	757.5mm	680mm

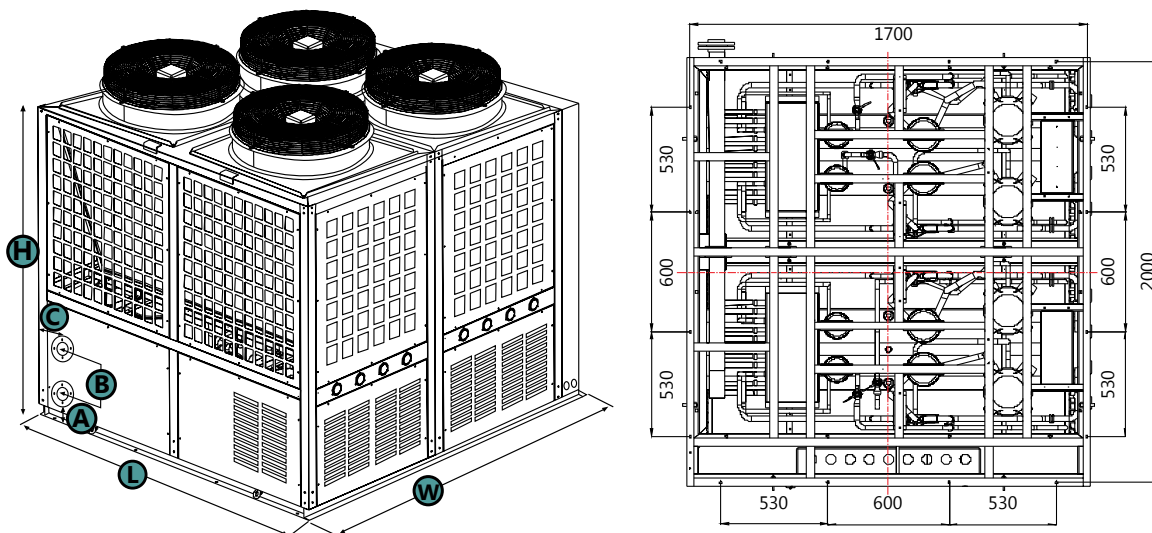
DIMENSIONAL DATA

CGB CONSTANT TEMPERATURE RANGE - V COIL TYPE
70.0kW - 210kW

CGB-070-V / 70.0kW
CGB-105-V / 105kW



CGB-140-V / 140kW
CGB-210-V / 210kW



MODEL NUMBER	LENGTH (L)	WIDTH (W)	HIGHT (H)	(A)	(B)	(C)
CGB-70-V	2000mm	980mm	1960mm	600mm	946mm	N/A
CGB-105-V	2000mm	980mm	2060mm	600mm	946mm	N/A
CGB-140-V	2000mm	2160mm	2230mm	210mm	100mm	150mm
CGB-210-V	2000mm	2160mm	2335mm	210mm	400mm	150mm

**THANK YOU FOR CONSIDERING
GREENBRO SOUTH AFRICA.**

**WE LOOK FORWARD TO THE
PROSPECT OF WORKING
TOGETHER.**



ENDORSED BY NATURE®

**Domestic and Commercial Mechanical Hot Water
Plantroom Specialists**

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