

INNOVATION SATISFACTION INTEGRITY INVOLVEMENT

GREENBR

ENDORSED BY NATURE®

"EXPERIENCE THE ECO-EFFICIENT COMFORT OF GREENBRO HEAT PUMP SOLUTIONS!"





75°C HGB RANGE

INDEX

HGB RANGE HIGH TEMPERATURE HEAT PUMPS



COMPANY INFORMATION

Registered Name : Greenbro South Africa (Pty) Ltd

 Registration Number
 : 2022/722228/07

 Vat No
 : 4150309740

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OVERVIEW

WHAT SETS THE HGB RANGE APART?

The Greenbro HGB Range 75°C High Temperature Heat Pumps are advanced heating systems designed to provide high efficiency and reliability in heating applications that requiring elevated temperatures.

The Greenbro HGB High Temperature Range is capable of delivering water temperatures of up to 75°C, making them suitable for various, commercial, and industrial uses.

INNOVATIVE FEATURES & BENEFITS



SUPERIOR QUALITY MATERIALS & COMPONANTS

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.



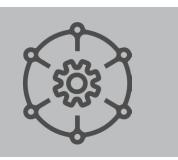
75°C HGB RANGE

INNOVATIVE FEATURES & BENEFITS

GREENBRO HGB RANGE HEAT PUMPS

THE IDEAL SOLUSION FOR APPLICATION REQUIRING ELEVATED TEMPERATURES





UNRIVALED VERSATILITY

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

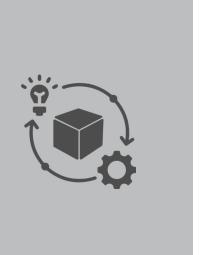
From heating water for domestic use to large-scale facilities, our heat pumps adapt seamlessly to various applications, providing consistent and dependable performance across the board.



PERFORMANCE

Meticulously engineered to excel across diverse applications our HGB Range is designed to prioritize safety, efficiency, and reliability. With a maximum water temperature setpoint of 75°C, offering versatility and performance for a wide array of heating needs.

Our HGB 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 functionallity 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.



HGB RANGE / 21.0kW - 31.0kW High Temperature Heat Pump Specification



	OPERATIONAL DATA								
				HGB-021-S	HGB-026-S	HGB-031-S			
	Heating Capacity		kW	20.5	26	31			
		Power Supply	Ph-V-Hz	380V/3PH/50HZ	380V/3PH/50HZ	380V/3PH/50HZ			
		Rated Input Consumption	kW	5.8	7.5	9			
¥	Power	Max Input Consumption	kW	8.70	11.25	13.50			
DAT		Rated Input Current	Α	9.99	12.91	15.50			
		Max Input Current	Α	14.98	19.37	23.24			
TING		Starting Current	Α	65	52	73			
₹		COP	W/W	3.53	3.47	3.44			
PERA	Max Water Temp Setpoint		°C	65	65	65			
ō	Max Outlet Water Temp		°C	75	75	75			
	Hot Water Yield		L/h	350	447	533			
	Recommended Water Flow		m³/h	4.4	5.6	6.7			
	Working Temp (Ambient)		°C	2°C~43°C	2°C~43°C	2°C~43°C			

	GENERAL & PARTS DATA							
				HGB-021-S	HGB-026-S	HGB-031-S		
		Model		ZW79KAE-TFP-52E	ZW61KAE-TFP-542	ZW72KAE-TFP-52E		
		Type / Brand		Scroll / Copeland	Scroll / Copeland	Scroll / Copeland		
		Compressor Qty	PCS	1	2	2		
	Compressor	Capacity	kW	65	52	58		
		Locked Rotor Amp	Α	Inner	Inner	Inner		
		Thermal Protector		None	None	None		
		Capacitor	μF					
		Model		YDK-160G-6 / HELONG	YDK-160G-6 / HELONG	YDK-160G-6 / HELONG		
		Input	W	320	320	320		
		Capacitor	μF	10	10	10		
	Fan Motor	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		
		Туре		Copper Tube in Shell	Copper Tube in Shell	Copper Tube in Shell		
	Heat Exchanger	Qty	PCS	1	2	2		
		Model / Brand		7P / Gimleo	6P / Gimleo	7P / Gimleo		
∢		Diameter of Copper Pipe	mm	19	19	19		
₽		Number of Rows		2	2	2		
۵	Evaporator	Tube Pitch(a)x Row Pitch(b)	mm	25x22	25x22	25x22		
TS		Fin Spacing	mm	1,8	1,8	1,8		
품		Fin Type		Hydrophilic Aluminum	Hydrophilic Aluminum	Hydrophilic Aluminum		
يم		Tube Outer Diameter & Type	mm	Ø9.52 Innergroove Tube	Ø9.52 Innergroove Tube	Ø9.52 Innergroove Tube		
GENERAL & PARTS DATA		Coil Length x Width x Height	mm	1609x44x900	2 x 1082x44x1000	2 x 1082x44x1200		
₹		Number of Circuits		4	12	14		
똢	Four-Way Valve	Model / Brand		STF-0408G / Saginomiya	STF-0408G / Saginomiya	STF-0408G / Saginomiya		
品	AC Contactor	Model / Brand		1	2	2		
Ū	Expansion Device	Туре		AAE4MC + Capillary / Emerson	AAE4MC / Emerson	AAE4MC + Capillary / Emerson		
		Model / Brand		Thermostatic Expansion Valve	Thermostatic Expansion Valve	Thermostatic Expansion Valve		
		Туре		Intelligent Touch Screen	Intelligent Touch Screen	Intelligent Touch Screen		
	Wire Controller	Part Number		O01T0089	O01T0089	O01T0089		
		The Length of Control Cable	m	12	12	12		
		Set Temp.	°C	30~75	30~75	30~75		
		Materials of Water Pipe		Copper	Copper	Copper		
		Water Flow	m3/h	4.4	5.6	6.7		
	Water System	Water Pressure Differential	Кра	60	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		Мра	2.85/0.02	2.85/0.02	2.85/0.02		
	Refrigerant	Gas Type		(R134A)	(R134A)	(R134A)		
		Gas Weight	g	1 x 3400g	2 x 3200g	2 x 3700g		
	Sound Pressure Level		dB(A)	58	60	61		
		Dimension(L*W*H)	mm	752x690x965	1450x702x1060	1450x702x1260		
	Dimensions	Packing(L*W*H)	mm	840x750x1100	1525x805x1220	1525x805x1420		
		NG/WG	kg	150/168	249/294	268/316		







HGB-026-S



HGB-031-S







	OPERATIONAL DATA							
				HGB-039-S	HGB-046-S	HGB-054-V		
	Heating Capacity		kW	39	46	54		
		Power Supply	Ph-V-Hz	380V/3PH/50HZ	380V/3PH/50HZ	380V/3PH/50HZ		
		Rated Input Consumption	kW	11.2	13.5	15.4		
≰	Power	Max Input Consumption	kW	16.80	20.25	23.1		
ď		Rated Input Current	Α	19.28	23.24	26.52		
G D		Max Input Current	Α	28.93	34.87	39.77		
DNIL		Starting Current	Α	71	81	107		
≅		COP	W/W	3.48	3.41	3.51		
OPERA'	Max Water Temp Setpoint		°C	65	65	65		
•	Max Outlet Water Temp		°C	75	75	75		
	Hot Water Yield		L/h	671	791	929		
	Recommended Water Flow		m³/h	8.4	9.9	11.6		
	Working Temp (Ambient)	·	°C	2°C~43°C	2°C~43°C	2°C~43°C		

				GENERAL & PARTS DA	TA	
				HGB-039-S	HGB-046-S	HGB-054-V
		Model		ZW61KAE-TFP-542	ZW72KAE-TFP-52E	ZW125KAE-TFP-522
		Type / Brand		Scroll / Copeland	Scroll / Copeland	Scroll / Copeland
		Compressor Qty	PCS	3	3	2
	Compressor	Capacity	kW	52	58	80
		Locked Rotor Amp	А	Inner	Inner	Inner
		Thermal Protector		None	None	None
		Capacitor	μF			
		Model		YDK-160G-6 / HELONG	YDK-160G-6 / HELONG	YWF.A6T-630S-5DIA00 / DUNLI
		Input	W	320	320	850
			uF	10	10	830
	Fan Motor	Capacitor		800/500	800/500	1350
		Speed	r/min		556	630
		Diameter of Fans	mm	556		
		Air Flow	m3/h	7000	7000	10800
		Fan Motor Qty	PCS	3	3	2
		Туре		Copper Tube in Shell	Copper Tube in Shell	Copper Tube in Shell
	Heat Exchanger	Qty	PCS	3	3	2
	neat Exchanger	Model		6P / Gimleo	7P / Gimleo	12 / Tuoqiu
		Diameter of Copper Pipe	mm	19	19	25.4x2
	Evaporator	Number of Rows		2	2	2
<u> </u>		Tube Pitch(a)x Row Pitch(b)	mm	25x22	25x22	25x22
y	Lvaporator	Fin Spacing	mm	1,8	1,8	2.2
Z		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
8		Coil Length x Width x Height	mm	3 x 935x44x1200	3 x 935x44x1200	2 x 1740x44x900
ان		Number of Circuits		21	21	9 x 2
SENERAL & PARTS DATA	Four-Way Valve	Model / Brand		STF-0408G / Saginomiya	STF-0408G / Saginomiya	STF-0712G / Saginomiya
z	AC Contactor	Model / Brand		3	3	2
픙	Francisco Desdes	Type		AAE4MC / Emerson	AAE4MC + Capillary / Emerson	TGEN-7 067N5157 / Danfoss
	Expansion Device	Model / Brand		Thermostatic Expansion Valve	Thermostatic Expansion Valve	Thermostatic Expansion Valve
		Type		Intelligent Touch Screen	Intelligent Touch Screen	Intelligent Touch Screen
		Part Number		O01T0089	O01T0089	O01T0089
	Wire Controller	The Length of Control Cable	m	12	12	12
		Set Temp.	°C	30~75	30~75	30~75
		Materials of Water Pipe	_	Copper	Copper	Copper
		Water Flow	m3/h	8.4	9.9	11.6
	Water System	Water Pressure Differential	Кра	55	55	60
	water system	Water Inlet Connection Size	mm	DN50 / Female	DN50 / Female	DN50 / Female
		Water Outlet Connection Size	mm	DN50 / Female	DN50 / Female	DN50 / Female
	Refrigerant HP & LP	The Court Connection Size	Мра	2.85/0.02	2.85/0.02	2.85/0.02
	Refrigerant	Gas Type		(R134A)	(R134A)	(R134A)
	Kenigerani	Gas Weight	g	3 x 3100g	3 x 3700g	2 x 6000g
	Sound Pressure Level		dB(A)	63	63	70
		Dimension(L*W*H)	mm	2150x765x1290	2150x765x1290	2000x980x1960
	Dimensions	Packing(L*W*H)	mm	2250x865x1450	2250x865x1450	2130x1100x2150
	Difficiations	NG/WG	kg	398/460	428/490	530/620







HGB RANGE / 68.0kW - 140kW High Temperature Heat Pump Specification



	OPERATIONAL DATA								
			HGB-068-V		HGB-080-V	HGB-110-V	HGB-140-V		
	Heating Capacity		kW	68	80	110	140		
		Power Supply	Ph-V-Hz	380V/3PH/50HZ	380V/3PH/50HZ	380V/3PH/50HZ	380V/3PH/50HZ		
		Rated Input Consumption	kW	20	23.5	31	40		
₹	Power	Max Input Consumption	kW	30	35.25	46.5	60		
DAT		Rated Input Current	Α	34.44	40.46	53.37	68.87		
		Max Input Current	A	51.65	60.69	80.06	103.31		
DNIL		Starting Current	Α	134	170	133	169		
₹		COP	W/W	3.40	3.40	3.55	3.50		
PERA	Max Water Temp Setpoint		°C	65	65	65	65		
0	Max Outlet Water Temp		°C	75	75	75	75		
	Hot Water Yield		L/h	1169	1376	1880	2408		
	Recommended Water Flow		m³/h	14.6	17.2	23.6	30.1		
	Working Temp (Ambient)		°C	2°C~43°C	2°C~43°C	2°C~43°C	2°C~43°C		

	GENERAL & PARTS DATA								
				HGB-068-V	HGB-080-V	HGB-110-V	HGB-140-V		
		Model		VR160KSE	VR190KSE-TFP	ZW125KAE-TFP-522	VR160KSE		
		Type / Brand		Scroll / Copeland	Scroll / Copeland	Scroll / Copeland	Scroll / Copeland		
		Compressor Qty	PCS	2	2	4	4		
	Compressor	Capacity	kW	100	130	80	100		
		Locked Rotor Amp	Α	Inner	Inner	Inner	Inner		
		Thermal Protector		None	None	None	None		
		Capacitor	μF						
							YWF.A6T-71		
		Model		YWF.A6T-710S-7DIIIS00 / DUNL	YWF.A6T-710S-7DIIIS00 / DUNL	YWF.A6T-630S-5DIA00 / DUNLI	0S-7DIIIS00 / DUNLI		
		Input	W	1000	1000	850	1000		
		Capacitor	μF	/	/	/	/		
	Fan Motor	Speed	r/min	900	900	1350	900		
		Diameter of Fans	mm	710	710	630	710		
		Air Flow	m3/h	13500	13500	10800	13500		
		Fan Motor Oty	PCS	2	2	4	4		
		Turrinotor Qty	. 65						
		Туре		Copper Tube in Shell					
	Heat Exchanger	Qty	PCS	2	2	4	4		
		Model	1 C3	15 / Tuogiu	15 / Tuogiu	12 / Tuogiu	15 / Tuoqiu		
		Diameter of Copper Pipe	mm	25.4x2	25.4x2	25.4x2	25.4x2		
₹		Number of Rows	111111	3	3	2	3		
ֻׁלַ				25x22	25x22	25x22	25x22		
	Evaporator	Tube Pitch(a)x Row Pitch(b)	mm	25x22 2.2	25x22 2.2	2.2	2.2		
Ë		Fin Spacing	mm						
¥		Fin Type		Hydrophilic Aluminum	Hydrophilic Aluminum	Hydrophilic Aluminum	Hydrophilic Aluminum		
4		Tube Outer Diameter & Type	mm	Ø9.52 Innergroove Tube	Ø9.52 Innergroove Tube	Ø9.52 Innergroove Tube	Ø9.52 Innergroove Tube		
89		Coil Length x Width x Height	mm	2 x 1740x66x900	2 x 1740x66x1000	4 x 1740x44x900	4 x 1740x44x900		
≶		Number of Circuits		9 x 2	9 x 2	9 x 4	9 x 4		
GENERAL & PARTS DATA	Four-Way Valve	Model / Brand		STF-1511G / Saginomiya	STF-1511G / Saginomiya	STF-0712G / Saginomiya	STF-1511G / Saginomiya		
ᇳ	AC Contactor	Model / Brand		2	2	4	4		
9	Expansion Device	Туре		TGEN-8 067N5159 / Danfoss	TGEN-10 067N5161 / Danfoss	TGEN-7 067N5157 / Danfoss	TGEN-8 067N5159 / Danfoss		
		Model / Brand		Thermostatic Expansion Valve	Thermostatic Expansion Valve	Thermostatic Expansion Valve	Thermostatic Expansion Valve		
		Туре		Intelligent Touch Screen	Intelligent Touch Screen	Intelligent Touch Screen	Intelligent Touch Screen		
	Wire Controller	Part Number		O01T0089	O01T0089	O01T0089	O01T0089		
		The Length of Control Cable	m	12	12				
		Set Temp.	°C	30~75	30~75	30~75	30~75		
		Materials of Water Pipe		Copper	Copper	Galvanized	Galvanized		
		Water Flow	m3/h	14.6	17.2	23.6	30.1		
	Water System	Water Pressure Differential	Кра	60	60	65	65		
		Water Inlet Connection Size	mm	DN50 / Female	DN50 / Female	DN80 / Female	DN80 / Female		
		Water Outlet Connection Size	mm	DN50 / Female	DN50 / Female	DN80 / Female	DN80 / Female		
	Refrigerant HP & LP		Мра	2.85/0.02	2.85/0.02	2.85/0.02	2.85/0.02		
	Defriesment	Gas Type		(R134A)	(R134A)	(R134A)	(R134A)		
	Refrigerant	Gas Weight	g	2 x 6500q	2 x 7000g	4 x 6000g	4 x 6500g		
	Sound Pressure Level		dB(A)	70	71	72	72		
	22	Dimension(L*W*H)	mm	2000x980x1960	2000x980x2062	2000x2160x2230	2000x2160x2230		
	Dimensions	Packing(L*W*H)	mm	2130x1100x2150	2130x1100x2250	2090x2290x2360	2090x2290x2360		
	Dimensions	NG/WG	kg	600/690	620/710	1020/1180	1120/1280		
			_ ^y	1000,000	1020,720	1 1020/1100	1120/1200		





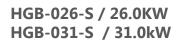
HGB-110-V HGB-140-V

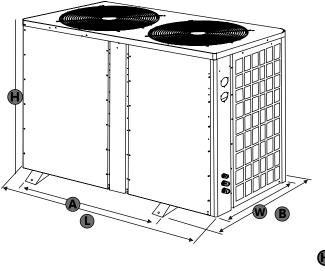


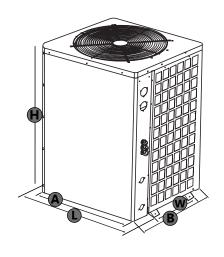
DIMENSIONAL DATA

HGB HIGH TEMPERATURE RANGE 21.0kW - 54.0kW

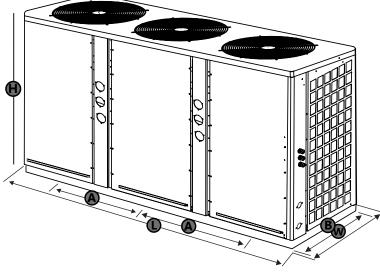
HGB-021-S / 21.0kW







HGB-046-S / 46.0kW HGB-039-S / 39.0kW



MODEL NUMBER	LENGTH (L)	WIDTH (W)	HIGHT (H)	(A)	(B)
HGB-021-S	752mm	690mm	965mm	470mm	785mm
HGB-026-S	1450mm	702mm	1060mm	755mm	708mm
HGB-031-S	1450mm	702mm	1260mm	755mm	708mm
HGB-039-S	2150mm	765mm	1290mm	757.5mm	680mm
HGB-046-S	2150mm	765mm	1290mm	757.5mm	680mm

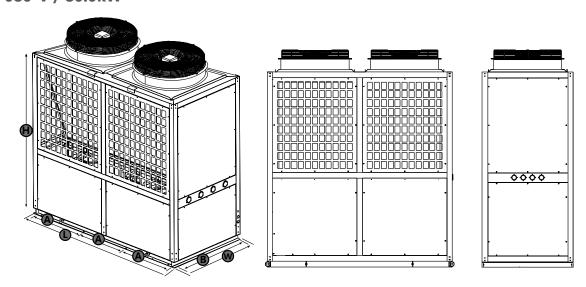


75°C HGB RANGE

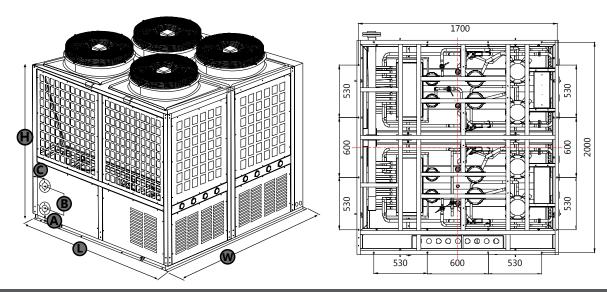
DIMENSIONAL DATA

HGB HIGH TEMPERATURE RANGE - V COIL TYPE 54.0kW - 140kW

HGB-054-V / 54.0kW HGB-068-V / 68.0kW HGB-080-V / 80.0kW



HGB-110-V / 110kW HGB-140-V / 140kW



MODEL NUMBER	LENGTH (L)	WIDTH (W)	HIGHT (H)	(A)	(B)	(C)
HGB-054-V	2000mm	980mm	1960mm	600mm	946mm	N/A
HGB-068-V	2000mm	980mm	1960mm	600mm	946mm	N/A
HGB-080-V	2000mm	980mm	2062mm	600mm	946mm	N/A
HGB-110-V	2000mm	2160mm	2230mm	210mm	400mm	150mm
HGB-140-V	2000mm	2160mm	2330mm	210mm	400mm	150mm



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

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





18 0860 GRNBRO / 0860 476 276

HEAD OFFICE

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