



THE SMART SOLUTION FOR ENERGY EFFICIENCY

GENESIS LARGE (GL) SERIES 6 TO 25 TON LARGE HORIZONTAL AND VERTICAL UNITS



ClimateMaster Water-Source Heat Pumps Genesis Large (GL) Series 6 to 25 Ton Horizontal and Vertical Units

THE GENESIS LARGE (GL) SERIES

The GL series offers high efficiency and high capacity in a compact cabinet. As ClimateMaster's largest capacity R-22 refrigerant water-to-air units, the GL series, meets ASHRAE 90.1 efficiencies.

Available in sizes 6 tons (21.1 kW) through 25 tons (87.9 kW) with multiple cabinet configurations, the GL series offers a wide range of units for most any installation. The GL has an extended range refrigerant circuit, capable of ground loop (geothermal) applications as well as water loop (boiler-tower) applications. Standard features are many. Microprocessor controls, galvanized steel cabinet, epoxy powder coat paint (vertical units) and TXV refrigerant metering device are just some of the features of the flexible GL series.

ClimateMaster's use of scroll compressors and belt-drive blowers help maximize vibration/sound attenuation. Options such as e-coated air coil, DDC controls, and stainless steel drain pans allow customized design solutions.

The GL Series water-source heat pumps are designed to meet the challenges of today's HVAC demands with a high efficiency, high value solution.

UNIT FEATURES

- Horizontal sizes 072 (6 tons, 21.1 kW), 096 (8 tons, 28.1 kW), 120 (10 tons, 35.2 kW)
- Vertical sizes 080 (6.7 tons, 23.4 kW), 100 (8.3 tons, 29.3 kW), 120 (10 tons, 35.2 kW), 160 (13.3 tons, 46.9 kW), 200 (16.7 tons, 58.6 kW), 240 (20 tons, 70.3 kW), 300 (25 tons, 87.9 kW)
- Copeland scroll compressors (reciprocating on GLH072)
- Dual refrigeration circuits (except GLV80, 100, 120)
- Meets ASHRAE 90.1 efficiencies
- Galvanized steel construction with epoxy powder coat paint (vertical units)
- Insulated divider and separate compressor/air handler compartments
- TXV metering device
- Extended range (20 to 110°F, -6.7 to 43.3°C) operation
- Microprocessor controls standard (optional DXM and/or DDC controls)
- LonWorks, BACnet, Modbus and Johnson N2 compatibility options for DDC controls
- Flush securely-mounted corner post water connections (no backup wrench required)
- Unit Performance Sentinel performance monitoring system
- Eight Safeties Standard
- Wide variety of options

The Smart Choice for Energy Efficiency



Condensate overflow is one of the 8 standard safeties provided by the microprocessor controls in all GL series units

Dual compressor refrigeration circuit in all GL series equipment except GLV80, 100 & 120



Wide variety of horizontal and vertical configurations



Large capacity (up to 25 tons)

Galvanized steel cabinet. Vertical units are also painted with baked-on epoxy powder finish



Belt drive blowers with high efficiency motors and multiple pulley adjustments

Optional insulated water/refrigerant circuits allow extended range operation (ground loop applications)



PERFORMANCE AND SPECIFICATIONS

ARI/ISO/ASHRAE 13256-1 Data (English (IP) Units & Metric (SI) Units)

Model	Voltage & Refrigerant	Water Loop Heat Pump				Ground Water Heat Pump				Ground Loop Heat Pump			
		Cooling 86°F [30°C]		Heating 68°F [20°C]		Cooling 59°F [15°C]		Heating 50°F [10°C]		Cooling 77°F [25°]		Heating 32°F [0°C]	
		Capacity	EER	Capacity	COP	Capacity	EER	Capacity	COP	Capacity	EER	Capacity	COP
		MBtuh [kW]	Btuh/W [W/W]	MBtuh [kW]		MBtuh [kW]	Btuh/W [W/W]	MBtuh [kW]		MBtuh [kW]	MBtuh [kW]	Btuh/W [W/W]	
60Hz - R22	kW	W/W	kW		kW	W/W	kW		kW	W/W	kW		
50Hz - R407c													
GLH072	60Hz - R22	68 [19.93]	13.2 [3.9]	86 [25.21]	4.6	76 [22.27]	18.7 [5.5]	69 [20.22]	4.1	70.5 [20.66]	14.6 [4.3]	52.5 [15.39]	3.5
	50Hz - R407c	16.50	4.0	18.78	4.6	17.40	4.5	11.75	3.7	19.00	5.8	15.26	4.2
GLH096	60Hz - R22	94.6 [27.73]	12.8 [3.8]	109 [31.86]	4.4	102 [29.87]	17.4 [5.1]	91 [26.67]	4.0	96.7 [28.34]	14.2 [4.2]	72.6 [21.28]	3.4
	50Hz - R407c	23.61	4.1	26.97	4.5	24.29	4.5	17.74	3.5	25.68	5.6	22.42	4.0
GLH120	60Hz - R22	120 [35.17]	12.7 [3.7]	138 [40.39]	4.2	128 [37.40]	17.2 [5.0]	114 [33.41]	3.9	122 [35.82]	14.1 [4.1]	90.5 [26.52]	3.2
	50Hz - R407c	29.24	3.7	24.58	4.5	29.99	4.2	21.99	3.3	21.52	5.2	27.95	3.9
GLV080	60Hz - R22	71 [20.81]	13.5 [4.0]	90 [26.38]	4.5	75.5 [22.13]	17.7 [5.2]	72 [21.10]	3.9	72 [21.16]	14.8 [4.3]	56.3 [16.50]	3.2
	50Hz - R407c	16.62	4.0	21.95	4.9	17.11	4.5	13.90	3.7	17.86	5.3	17.59	4.3
GLV100	60Hz - R22	97 [28.43]	12.5 [3.7]	111 [32.53]	4.5	108 [31.65]	17.0 [5.0]	90.7 [26.58]	4.0	103 [30.19]	14.3 [4.2]	73.3 [21.48]	3.3
	50Hz - R407c	23.14	3.8	27.85	4.6	24.03	4.3	18.26	3.4	25.51	5.1	22.84	4.0
GLV120	60Hz - R22	108 [31.65]	12.2 [3.6]	124 [36.34]	4.2	116 [34.14]	16.2 [4.7]	99.5 [29.16]	3.8	111 [32.53]	13.4 [3.9]	79 [23.15]	3.3
	50Hz - R407c	25.18	3.5	31.58	4.2	25.49	3.8	20.87	3.3	26.21	4.4	25.70	3.8
GLV160	60Hz - R22	142 [41.62]	13.5 [4.0]	180 [52.76]	4.5	151 [44.26]	17.7 [5.2]	144 [42.20]	3.9	144.4 [42.32]	14.8 [4.3]	112.6 [33.00]	3.2
	50Hz - R407c	33.23	4.0	43.91	4.9	34.22	4.5	27.79	3.7	35.71	5.3	35.19	4.3
GLV200	60Hz - R22	194 [56.86]	12.5 [3.7]	222 [65.06]	4.5	216 [63.31]	17.0 [5.0]	181.4 [53.17]	4.0	206 [60.38]	14.3 [4.2]	146.6 [42.97]	3.3
	50Hz - R407c	46.28	3.8	55.71	4.6	48.07	4.3	36.52	3.4	51.02	5.1	45.68	4.0
GLV240	60Hz - R22	216 [63.31]	12.2 [3.6]	248 [72.69]	4.2	233 [68.29]	16.2 [4.7]	199 [58.32]	3.8	222 [65.06]	13.4 [3.9]	158 [46.31]	3.3
	50Hz - R407c	50.37	3.5	63.16	4.2	50.98	3.8	41.73	3.3	52.43	4.4	51.39	3.8
GLV300	60Hz - R22	273 [80.01]	11.8 [3.5]	318 [93.20]	4.0	286 [83.82]	15.3 [4.5]	260.6 [76.38]	3.4	278.4 [81.59]	12.7 [3.7]	209.2 [61.31]	3.0
	50Hz - R407c	62.87	3.4	78.31	3.9	64.27	3.7	51.07	2.9	65.79	4.3	64.76	3.4

Cooling capacities based upon 80.6°F [27°C] DB, 66.2°F [19°C] WB entering air temperature.

Heating capacities based upon 68°F [20°C] DB, 59°F [15°C] WB entering air temperature.

All ratings based upon operation at the lower voltage of dual voltage rated models.

Dimensional Data

Vertical Model		Overall Cabinet		
		W	D	H
080 - 120	in.	29.0	41.0	71.5
	cm.	73.7	104.1	181.6
160 - 300	in.	29.0	82.0	71.5
	cm.	73.7	208.3	181.6

Horizontal Model		Overall Cabinet		
		W	D	H
072 - 120	in.	36.3	72.3	21.6
	cm.	92.2	183.6	54.9

Voltage Options

Vertical Model	Volts	Hz	Phase
080 - 300	208/230	60	3
	460	60	3
	575	60	3
	380/420	50	3

Horizontal Model	Volts	Hz	Phase
072	208/230	60	3
	460	60	3
	380/420	50	3
096 - 120	208/230	60	3
	460	60	3
	575	60	3
	380/420	50	3



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