

COMMERCIAL PRODUCT CATALOG

WATER SOURCE / GEOTHERMAL HEAT PUMPS



AFFORDABLE RENEWABLE CLEAN

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A FAMILY OF OVERACHIEVERS.

You're interested in being as efficient as possible—providing extremely comfortable heating and cooling while improving your bottom line. GeoStar units offer that and so much more.

In addition to constantly pushing the boundaries of efficiency for HVAC, GeoStar has dedicated itself to innovation, quality and customer satisfaction. Throughout the assembly process, every unit is subjected to a wide range of quality assurance measures. Equipment undergoes a rigorous battery of computerized run-tests to ensure that performance meets or exceeds standards for efficiency, safety, and reliable operation. By choosing GeoStar products, you're investing in the ultimate comfort system and peace of mind for years to come.



TAX CREDIT EXTENDED

The Inflation Reduction Act of 2022 makes installing energy efficient systems more appealing than ever before. As a result of this bill, Americans can potentially receive government incentives to help cover a significant portion of the cost of decarbonizing their buildings. The best part is that GeoStar products enable you to qualify your building for these beneficial savings. We can help you make your building greener—for less. The bill is to remain in place for 10 years, so take advantage of this valuable opportunity. When you're ready to go green, we're here to help.



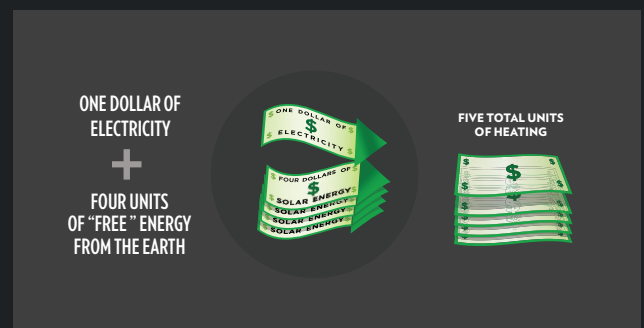
LEED CERTIFICATION

The LEED system is a voluntary, consensus-based national standard for developing high-performance, sustainable buildings. The USGBC (United States Green Building Council), promotes buildings that are environmentally responsible, profitable and healthy places to work with these ratings. GeoStar water source & geothermal systems can contribute in several sections of LEED, including energy efficiency and IAQ, to help you achieve points and the ultimate status in green building.

BENEFITS OF GEOSTAR

✓ **ENERGY EFFICIENT:** GeoStar water source/geothermal systems are simply the most efficient units available. They can deliver up to five dollars of energy for every dollar of electrical energy used. That translates into an astounding efficiency rating of 500 percent, compared to the most efficient gas furnace, which rates only 97 percent.

✓ **COST EFFECTIVE:** Because of the extraordinary efficiency of a GeoStar system, any added costs over ordinary equipment are usually more than offset by your annual energy savings. In fact, most building owners experience an immediate positive return on their investment. In replacement and retrofit installations, costs are usually recouped within just a few years.



TYPICAL APPLICATIONS

GeoStar products can be designed to fit into a variety of applications. These versatile systems are perfect for boiler/tower as well as geothermal and hybrid configurations.

Water Loop Applications



BOILER/TOWER: Where large ground-source systems are not viable, existing boiler/tower installations are often retrofitted. Hybrid systems use a ground-source loop coupled with down-sized conventional heat rejection or boiler/tower equipment.



HYBRID LOOP: Combines boiler tower and geothermal loop technologies to achieve optimal efficiencies, while meeting the challenges of both loop field space and budget constraints.

Ground Source Applications



VERTICAL LOOP: The ideal choice when limited land surface is available. Well-drilling equipment is used to bore the 75 ft. to 300 ft. deep, small-diameter holes that will accommodate the loop.



POND LOOP: Very economical to install when an adequate body of water is available, because excavation costs are virtually eliminated. Coils of pipe are simply placed on the bottom of the nearby pond or lake.

✓ **FLEXIBLE:** Regardless of climate, GeoStar systems deliver. A variety of configurations and sizes are available to fit any application—heating, cooling, supplemental domestic hot water, hot gas bypass and hot gas reheat.

✓ **RELIABLE:** The GeoStar reputation for reliability has been earned by using only the highest-quality components, design and workmanship. Computer run-testing after assembly ensures that your equipment performs flawlessly at start-up.

✓ **CLEAN:** High-efficiency air cleaners found in GeoStar systems improve your indoor air quality by removing dust and pollen so you can breathe easier. For added protection, ask about our AlpinePure line of premium indoor air quality solutions.

QUICK SHIP PROGRAM

To help support a growing demand for replacement water source heat pumps, select GeoStar models and configurations can be ordered through our expedited Quick Ship Program.



Arbor Series Compact Configuration Options

Maximum of 6 units per size and voltage with a total of 20 units per order (call customer service if a higher quantity is needed)

- Vertical or Horizontal cabinets
- Left or Right Return Air
- Discharge Air: top (vertical), end or side discharge (horizontal)
- Sizes: Single Speed: 012, 018, 024, 030, 036, 041 vertical, 042, 048, 060, 070
- Voltages: 208-230/60/1, 265-277/60/1, 208-230/60/3, 460/60/3, 575/60/3
- Blower Motor Options: VS ECM and 5-Speed ECM (015-070)
- All-Aluminum Air Coil
- Insulated Cupronickel Water Coil
- 4-Sided Filter Rack
- Optional Sound Kit (Not available on 012)
- Optional Electronic Disconnect
- Optional Stainless Steel Drain Pan
- Optional 2-way Internal Valve (018-070)



Aston Series Compact Configuration Options

Maximum of 6 units per size and voltage with a total of 20 units per order (call customer service if a higher quantity is needed)

- Vertical or Horizontal cabinets
- Left or Right return air
- Discharge air: top (vertical), end or side discharge (horizontal)
- Sizes: Single Speed: 012, 015, 018, 024, 030, 036, 042, 048, 060, 070 Dual Capacity: 026, 038, 049, 064, 072
- Voltages: 208-230/60/1, 265-277/60/1, 208-230/60/3, 460/60/3
- Blower Motor Options: VS ECM and 5-Speed ECM (015-070)
- All-Aluminum Air Coil
- Optional Insulated Water Coil
- 4-Sided Filter Rack
- Optional Sound Kit
- Optional Electrical Disconnect
- Optional Hot Water Generator
- Optional Stainless Steel Condensate Drain Pan
- Optional 2-way Internal Water Valve (015-072)



ARBOR SERIES COMPACT

0.5 TO 6 TONS

- Water-to-Air Packaged Unit
- 13.2 to 14.7 EER (WLHP)
- 15.6 to 17.0 EER (GLHP)
- Single speed rotary/scroll compressors
- 5-Speed ECM/VS ECM Fan Motors



ASTON SERIES COMPACT

0.75 TO 6 TONS

- Water-to-Air Packaged Unit
- 15.0 to 21.6 EER (WLHP)
- 17.0 to 30.0 EER (GLHP)
- Single speed rotary/scroll/dual capacity scroll compressors
- 5-Speed ECM/VS ECM Fan Motors



ASTON SERIES XL

7 TO 30 TONS

- Water-to-Air Packaged Unit
- 12.1 - 17.5 EER (WLHP)
- 14.0 to 25.0 EER (GLHP)
- Two stage scroll compressors (7-10 ton)
- Dual scroll compressor (12-30 ton)
- Variable Speed ECM - Backward inclined fan motors
- On average 25% smaller footprint vs competition
- Take-apart vertical cabinet (20-30 ton)



ASTON SERIES LOW SILL

0.75 TO 1.5 TONS

- Water-to-Air Packaged Unit
- 12.2 EER (WLHP)
- 13.5 to 14.3 EER (GLHP)
- Single speed rotary compressors
- Low sill front return console cabinet
- 3-Speed ECM Fan Motors



ASTON SERIES CONSOLE

0.75 TO 1.5 TONS

- Water-to-Air Packaged Unit
- 12.3 to 13.6 EER (WLHP)
- 14.2 to 16.0 EER (GLHP)
- Single speed rotary compressors
- Bottom return console cabinet
- 3-Speed ECM Fan Motors



ASTON SERIES SINGLE HYDRONIC

2 TO 5 TONS

- Water-to-Water Heat Pump
- 12.3 to 15.5 EER (WLHP)
- 14.0 to 17.5 EER (GLHP)
- Single speed scroll compressor



ASTON SERIES DUAL HYDRONIC

10 TO 15 TONS

- Water-to-Water Heat Pump
- 13.3 to 15.8 EER (WLHP)
- 15.8 to 22.0 EER (GLHP)
- Dual single speed scroll compressors

WATER-TO-AIR HEAT PUMPS



	Arbor Series Compact	Aston Series Compact
Capacity Tons	0.5 - 6	0.75 - 6
Efficiency Water Loop Heat Pump	up to 14.7 up to 4.9	up to 21.6 up to 6.4
Compressor	Single-Stage Rotary Single-Stage Scroll	Single-Stage Rotary Single-Stage Scroll Dual-Stage Scroll
Blower Type	<ul style="list-style-type: none"> • 5-Spd ECM • VS ECM 	<ul style="list-style-type: none"> • 5-Spd ECM • VS ECM
Cabinet Configuration	<ul style="list-style-type: none"> • Vertical Topflow • Horizontal 	<ul style="list-style-type: none"> • Vertical Topflow • Horizontal
Aurora Control Type	<ul style="list-style-type: none"> • Base 	<ul style="list-style-type: none"> • Base
Hot Water Generator (Coil Only)	NA	015-072 Vertical Only
Available Voltages	208-230/60/1 265/60/1 208-230/60/3 460/60/3 575/60/3	208-230/60/1 265/60/1 208-230/60/3 460/60/3 575/60/3
Air Coil	All-Aluminum	All-Aluminum
Options	<ul style="list-style-type: none"> • Internal 2-way Valve • Flow regulator • Cupronickel Coax • Stainless Steel Drain Pan • Sound Kit • Disconnect • Phase Guard • MERV13 • Coated Air Coil 	<ul style="list-style-type: none"> • Internal 2-way Valve • Flow regulator • Hot Gas Bypass¹ • Hot Gas Reheat¹ • Disconnect • Phase Guard • Cupronickel Coax • Sound Kit • MERV13 • Stainless Steel Drain Pan • Coated Coil



Aston Series XL	Aston Series Low Sill	Aston Series Console
7-30	0.75 - 1.5	0.75 - 1.5
up to 17.5 up to 5.6	12.2 EER 4.3 - 4.4 COP	12.3 - 13.6 EER 4.3 - 4.9 COP
Dual Stage Scroll (7-10 ton) Dual Scroll (12.5 - 30 ton)	Rotary	Rotary
• VS Integ BC ECM Plenum Fan	• 3-Spd ECM FC	• 3-Spd ECM FC
• Vertical Topflow • Horizontal	• Slope Top • Flat Top • Chassis Only	• Slope Top • Ext Slope Top • Flat Top • Chassis Only
• Base	• Base	• Base
NA	NA	NA
208-230/60/3 460/60/3 575/60/3 with step down transformer	208-230/60/1 265/60/1	208-230/60/1 265/60/1
All-Aluminum	All-Aluminum	All-Aluminum
• Internal 2-way Valve • Hot Gas Bypass ¹ • Modulating Hot Gas Reheat ¹ • Head Pressure Control	• Internal 2-way Valve • Flow regulator	• Internal 2-way Valve • Flow regulator

WATER-TO-WATER HEAT PUMPS



	Aston Series Single Hydronic	Aston Series Dual Hydronic
Style	Water-to-Water Packaged Chiller	Water-to-Water Packaged Chiller
Capacity Range (Tons)	2 - 5	10 - 15
Sizes Available (Tons)	2, 3.5, 4, 5	10, 12, 15
Efficiency Water Loop Heat Pump	12.3 - 15.5 EER 4.2 - 4.8 COP	13.3 - 15.8 EER 3.9 - 4.6 COP
Ground Loop Heat Pump	14.0 - 17.5 EER 2.9 - 3.1 COP	15.8 - 22.0 EER 2.7 - 3.5 COP
Compressor	Single-Stage Scroll	Dual Scroll
Blower	NA	NA
Cabinet Configuration	Compact Unit; Field switchable control box.	Compact Unit: Top & Back mounted water connections. Field switchable control box.
Control Type	Aurora	Aurora
Hot Water Generator (Coil Only)	040 - 075 models only	NA
Available Voltages	208-230/60/1 265/60/1 208-230/60/3 460/60/3 575/60/3	208-230/60/1 208-230/60/3 460/60/3 575/60/3
Air Coil	NA	NA
Options	<ul style="list-style-type: none"> Copper or Cupronickel coaxial heat exchangers 	<ul style="list-style-type: none"> Back or Top water connection Front or back control box location

PRODUCT FEATURES SUMMARY

		Arbor Series Compact	Aston Series Compact	Aston Series XL	Aston Series Low Sill	Aston Series Console
Capacity Tons		0.5 - 6	0.75 - 6	7 - 30	0.75 - 1.5	0.75 - 1.5
WSHP EER (up to)		14.7	21.6	17.5	12.2	13.6
WSHP COP (up to)		4.9	6.4	5.6	4.4	4.9
Compressor Stages		1	2	2	1	1
Blower		FC	FC	FC/BC	FC	FC
Controls	IntelliZone2	-	O	O	-	-
	Base	S	S	S	S	S
	Advanced	-	O	O	-	-
	Premium	-	-	O	-	-
	VAV	-	-	-	-	-
	Twinning	-	-	-	-	-
Internal 2-way valve		O	O	O	O	O
Economizer ¹		O	O	O	-	-
Hot Gas Bypass ¹		-	O	O	-	-
Hot Gas Reheat ¹		-	O	-	-	-
Modulating Hot Gas Reheat ¹		-	-	O	-	-
Head Pressure Control		-	-	O	-	-
Flow Regulator		O	O	-	O	O
EEV		-	-	O	-	-

Key
S = Standard
O = Optional
IN = Integrated
BC = Backward Curve
FC = Forward Curve
VS = Variable Speed
VAV = Variable Air Volume
¹ = Available through Commercial Representatives

ARBOR SERIES COMPACT - 0.5-6 TON

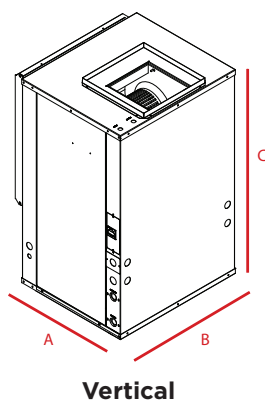
Water-to-Air Heat Pump

Standard Features:

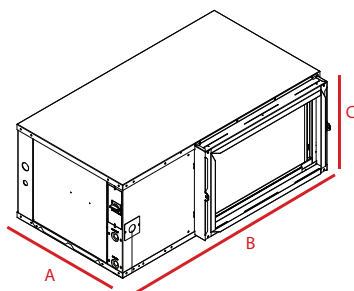
- Capacities of 6,000 through 70,000 Btu/h
- Voltages: 208-230/60/1, 265-277/60/1, 208-230/60/3, 460/60/3, and 575/60/3
- Vertical and horizontal w/ true left and right return
- Horizontal end or side discharge
- Heavy gauge galvanized cabinet
- Removable inlet ring blowers
- Quiet rotary or scroll compressors in all models
- All-Aluminum rifled tube-and-lanced fin air coil
- Polymer composite drain pan
- Bi-directional balanced port TXV
- Oversized copper coaxial water heat exchanger
- 4 sided filter rail
- Aurora Base Controls

Optional Features:

- VS ECM fan motors
- Painted Cabinet
- Filter Rack
- Phase guard rotary disconnect separate feature
- Stainless steel drain pan w/ secondary drain connection
- Extended range insulation option
- AlumiSeal air coil e-coating
- 2 in. MERV 13 filter
- Waterside economizer¹
- Cupronickel water coil



Vertical



Horizontal



Vertical Cabinets	Overall Cabinet Dimensions		
	A (WIDTH) in. [cm]	B (DEPTH) in. [cm]	C (HEIGHT) in. [cm]
006-012	19.2 [48.8]	19.2 [48.8]	24.2 [61.5]
015-018	22.5 [57.2]	22.2 [56.4]	30.2 [76.7]
024-030	22.5 [57.2]	22.2 [56.4]	36.2 [91.9]
036	22.5 [57.2]	26.2 [66.5]	40.2 [102.1]
041	21.5 [54.6]	21.5 [54.6]	40.2 [102.1]
042-048	22.5 [57.2]	26.2 [66.5]	44.2 [112.3]
060	25.5 [64.8]	31.2 [79.2]	44.2 [112.3]
070	25.5 [64.8]	31.2 [79.2]	48.2 [122.4]

Horizontal Cabinets	Overall Cabinet Dimensions		
	A (WIDTH) in. [cm]	B (DEPTH) in. [cm]	C (HEIGHT) in. [cm]
006-012	19.2 [48.8]	35.0 [88.9]	12.1 [30.7]
015-018	22.5 [57.2]	35.0 [88.9]	17.2 [43.7]
024-030	22.5 [57.2]	42.0 [106.7]	17.2 [43.7]
036	22.5 [57.2]	42.0 [106.7]	19.2 [48.8]
042-048	22.5 [57.2]	45.0 [114.3]	19.2 [48.8]
060	25.5 [64.8]	48.0 [121.9]	21.2 [53.8]
070	25.5 [64.8]	53.0 [134.6]	21.2 [53.8]

Efficiency in an industry leading ultra-compact cabinet for retrofit and new construction WSHP applications.

	1	2	3	4	5-7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24-26
	G	3	A	V	042	B	S	0	*	N	1	C	I	L	A	A	N	N	0	1	0	SSS
Brand G – GeoStar																						Non-Standard Options SSS – None
Model 3 – 300 Series																						Drain Pan Option 0 – Composite, No Secondary Connection 1 – Composite, Secondary Connection 2 – Stainless Steel, No Secondary Connection 3 – Stainless Steel, Secondary Connection
Type A – Water-to-Air																						Air Coil Option 1 – All-Aluminum, Uncoated 2 – All-Aluminum, AlumiSeal™
Cabinet Configuration V – Vertical H – Horizontal																						Cabinet Option 0 – Unpainted Cabinet, Filter Rail 1 – Painted Cabinet, Filter Rail 2 – Unpainted Cabinet, 4-Sided Filter Rack 3 – Painted Cabinet, 4-Sided Filter Rack
Capacity 006, 009, 012, 015, 018, 024, 030 036, 042, 048, 060, 070																						Water Control Option N – None R – Water Flow Regulator (015-070) V – 2-Way Valve (015-070) B – 2-Way Valve w/ Water Flow Regulator
Refrigerant B – R454B																						Electrical Option¹ N – None D – No Phase Guard, Disconnect P – Phase Guard, No Disconnect B – Phase Guard, Disconnect
Compressor Type R – Rotary (006-018) S – Single Stage Scroll (024-070)																						Control Option A – Aurora™ Base Control (ABC)
Voltage 0 – 208-230/60/1 2 – 265/60/1 3 – 208-230/60/3 4 – 460/60/3																						Sound Kit Option A – None B – Sound Kit (Not available on 006-012)
Vintage * – Factory Use																						Return Air Configuration L – Left R – Right
Refrigeration Option N – None																						
Blower Option 1 – Variable Speed ECM Blower (015-070) 4 – 5-Speed ECM Blower (015-070) 6 – Variable Speed Constant Torque ECM Blower (006-012)																						
Water Coil Option C – Copper D – Insulated Copper N – CuproNickel P – Insulated CuproNickel																						
Discharge Air Configuration T – Top (Vertical) E – End (Horizontal) S – Side (Horizontal)																						

Note:

1 – Phase Guard Only Available on 208-230/60/3 and 460/60/3.



All Arbor Series Compact products are safety listed under UL 60335-2-40 through ETL, and performance listed with AHRI in accordance with ASHRAE/ANSI/AHRI/ISO Standard 13256-1.

ASTON SERIES COMPACT - 0.75-6 TON

Water-to-Air Heat Pump

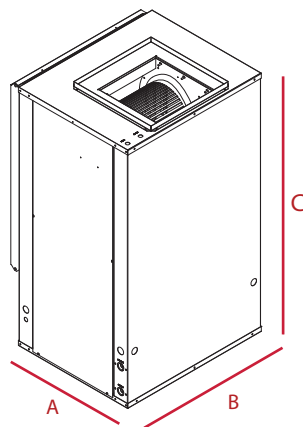
Standard Features:

- Capacities of 9,000 through 72,000 Btu/h
- Voltages: 208-230/60/1, 265-277/60/1, 208-230/60/3, 460/60/3, and 575/60/3
- Vertical and horizontal w/ true left and right return
- Horizontal end or side discharge
- Heavy gauge galvanized cabinet
- Removable inlet ring blowers
- High efficiency rotary, single speed scroll or dual capacity scroll compressors
- All-Aluminum rifled tube-and-lanced fin air coil
- Polymer composite drain pan
- Bi-directional balanced port TXV
- Oversized copper coaxial water heat exchanger
- Filter rail for open return applications
- 75VA transformer with circuit breaker
- Aurora Base Controls

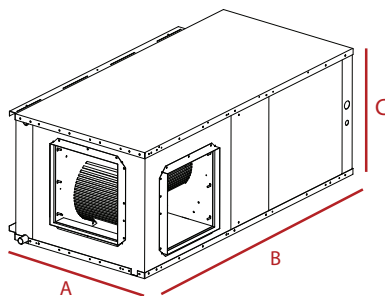


Optional Features:

- 5-speed ECM, or VS ECM fan motors
- Painted Cabinet
- Optional 4 sided filter rack
- Phase guard with optional 'dial' disconnect
- Stainless steel drain pan w/ secondary drain connection
- Extended range insulation option
- AlumiSeal air coil e-coating
- 2 in. MERV 13 filter
- Waterside economizer¹
- Cupronickel water coil
- Internal motorized 2-way valve
- Water flow regulator
- Sound kit
- IntelliZone Commercial and IntelliZone BACnet capabilities¹
- High static fan options
- Hot Gas Bypass¹
- Hot Gas Reheat¹
- Hot Water Generation



Vertical



Horizontal

Vertical Cabinets	Overall Cabinet Dimensions		
	A (WIDTH) in. [cm]	B (DEPTH) in. [cm]	C (HEIGHT) in. [cm]
009-012	22.5 [57.2]	22.2 [56.4]	30.2 [76.7]
015-018	22.5 [57.2]	26.2 [66.5]	40.2 [102.1]
024-030	22.5 [57.2]	26.2 [66.5]	44.2 [112.3]
036-038	25.5 [64.8]	31.2 [79.2]	44.2 [112.3]
042-049	25.5 [64.8]	31.2 [79.2]	48.2 [122.4]
060-072	25.5 [64.8]	31.2 [79.2]	52.2 [132.6]

Horizontal Cabinets	Overall Cabinet Dimensions		
	A (WIDTH) in. [cm]	B (DEPTH) in. [cm]	C (HEIGHT) in. [cm]
009-012	22.5 [57.2]	35.0 [88.9]	17.2 [43.7]
015-018	22.5 [57.2]	42.0 [106.7]	19.2 [48.8]
024-030	22.5 [57.2]	45.0 [114.3]	19.2 [48.8]
036-038	25.5 [64.8]	48.0 [121.9]	21.2 [53.8]
042-049	25.5 [64.8]	53.0 [134.6]	21.2 [53.8]
060-064	25.5 [64.8]	61.0 [154.9]	21.2 [53.8]
070-072	25.5 [64.8]	68.0 [172.7]	21.2 [53.8]

¹= Available through Commercial Representatives

High-efficiency single and dual stage compressors and high feature set in compact cabinet for retrofit and new construction WSHP applications.

1	2	3	4	5-7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24-26
G	S	A	V	042	B	S	Q	*	N	1	C	I	L	A	A	N	N	Q	1	Q	SSS
Brand G – GeoStar																					Non-Standard Options SSS – None
Model S – 500 Series																					Drain Pan Option 0 – Composite, No Secondary Connection 1 – Composite, Secondary Connection 2 – Stainless Steel, No Secondary Connection 3 – Stainless Steel, Secondary Connection
Type A – Water-to-Air																					Air Coil Option Option 1 – All-Aluminum, Uncoated 2 – All-Aluminum, AlumiSeal™
Cabinet Configuration V – Vertical H – Horizontal																					Cabinet Option 0 – Unpainted Cabinet, Filter Rail 1 – Painted Cabinet, Filter Rail 2 – Unpainted Cabinet, 4-Sided Filter Rack 3 – Painted Cabinet, 4-Sided Filter Rack
Capacity 009, 012, 015, 018, 024, 030 036, 042, 048, 060, 072																					Water Control Option N – None R – Water Flow Regulator V – 2-Way Valve B – 2-Way Valve w/ Water Flow Regulator
Refrigerant B – R454B																					Electrical Option¹ N – None A – IntelliStart® E – IntelliStart® and Disconnect P – Phase Guard, No Disconnect B – Phase Guard, Disconnect D – No Phase Guard, Disconnect
Compressor Type D – Two Stage Scroll (018-072) S – Single Stage Scroll (024-072) R – Rotary (009-018)																					Control Option A – Aurora™ Base Control (ABC)
Voltage 0 – 208-230/60/1 2 – 265/60/1 3 – 208-230/60/3 4 – 460/60/3																					Sound Kit Option A – None B – Sound Kit
Vintage * – Factory Use																					Return Air Configuration L – Left R – Right
Refrigeration Option N – None 2 – HWG Only w/o Pump (Vertical 018-072) G – Hot Gas Bypass (015-072) R – Hot Gas Reheat (015-072) B – Hot Gas Bypass w/Hot Gas Reheat (015-072)																					Discharge Air Configuration T – Top (Vertical) E – End (Horizontal) S – Side (Horizontal) B – Bottom (Vertical)
Blower Option 1 – Variable Speed ECM Blower (015-072) 2 – High Static Variable Speed ECM Blower (036, 038, 042, 048) 4 – 5-Speed ECM Blower (015-072) 6 – Variable Speed Constant Torque ECM Blower (009-012)																					
Water Coil Option C – Copper D – Insulated Copper N – CuproNickel P – Insulated CuproNickel																					

Note:

1 – Phase Guard Only Available on 208-230/60/3 and 460/60/3.



All Aston Series Compact products are safety listed under UL 60335-2-40 through ETL, and performance listed with AHRI in accordance with ASHRAE/ANSI/AHRI/ISO Standard 13256-1.

ASTON SERIES XL - 7-30 TON

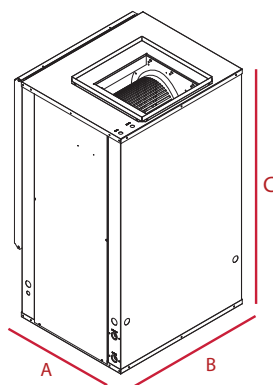
Water-to-Air Heat Pump

Standard Features:

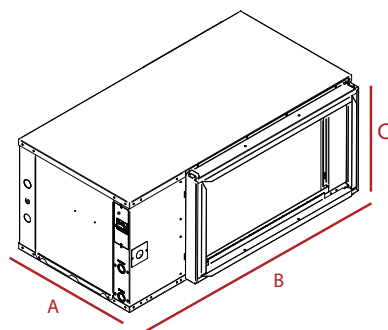
- Take-apart capabilities (20-30 ton)
- 3 vertical (7-30 ton) and 2 horizontal (7-15 ton) cabinet configurations
- Voltages: 208-230/60/3, 460/60/3, and 575/60/3
- All-Aluminum rifled tube-and-fin air coils are not susceptible to formicary corrosion
- All-Aluminum interlaced air coils (12-30 ton)
- Industry leading quality through engineering and manufacturing using quality components
 - High Efficiency and reliable permanent magnet dual and single capacity scroll compressors
 - High Efficiency variable speed, backward inclined plenum fan with 2" w.g. ESP capability
- High efficiency performance for maximizing LEED points
- Split access panel design for ease of service

Optional Features:

- Painted Cabinet
- Filter Rack
- Electronic expansion device with stepper motor, in-line valve design operated by direct drive motor technology. (Advanced EEV)
- Waterside Economizer¹
- Head pressure control capabilities
- Sound kit
- Aurora Advanced Control
- Modulating hot gas reheat ¹
- IntelliZone Commercial and IntelliZone BACnet capabilities¹



Vertical



Horizontal

Vertical Cabinets	Overall Cabinet Dimensions		
	A (WIDTH) in. [cm]	B (DEPTH) in. [cm]	C (HEIGHT) in. [cm]
084-120	34.0 [86.4]	36.3 [92.2]	72.5 [184.2]
150-180	34.0 [86.4]	46.3 [117.5]	72.5 [184.2]
240-360	34.0 [86.4]	88.0 [34.6]	80.0 [31.5]

Horizontal Cabinets	Overall Cabinet Dimensions		
	A (WIDTH) in. [cm]	B (DEPTH) in. [cm]	C (HEIGHT) in. [cm]
084-120	34.0 [86.4]	89.0 [226.1]	29.9 [75.9]
150-180	34.0 [86.4]	110.0 [279.4]	29.9 [75.9]

¹= Available through Commercial Representatives

The reduced footprint and take-a-part cabinet option make this product suitable for both retrofit and new construction applications and provides optimum performance and flexibility in both water loop and geothermal applications.

	1	2	3	4	5-7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24-26
	G	5	A	V	120	B	D	3	*	N	5	C	T	L	A	A	N	N	3	1	N	SSS
Brand G – GeoStar																						Non-Standard Options SSS – None
Model 5 – 500 Series																						Future Option N – Future
Type A – Water-to-Air																						Air Coil Option Option 1 – All-Aluminum, Uncoated
Cabinet Configuration V – Vertical (084-360) H – Horizontal (084-180) T – Vertical Take-Apart (240-360)																						Cabinet Option 2 – Unpainted Cabinet, 4-Sided Rack (Horizontal) 3 – Painted Cabinet, 4-Sided Rack (Vertical)
Capacity 084, 096, 120, 150, 180, 240, 300, 360																						Water Control Option N – None V – 2-Way Valve, On/Off
Refrigerant B – R454B																						Electrical Option N – Standard D – Non-Fused Disconnect
Compressor Type D – Two Stage Scroll (084-120) S – Single Stage Scroll (150-360)																						Control Option² A – Standard, None C – Aurora™ Advanced D – Aurora™ Premium
Voltage 3 – 208-230/60/3 4 – 460/60/3 5 – 575/60/1 ¹																						Sound Kit Option A – None B – Sound Kit
Vintage * – Factory Use																						Return Air Configuration L – Left R – Right
Refrigeration Option N – Standard, None G – Hot Gas Bypass																						Discharge Air Configuration T – Top/Side (Vertical) E – End/Side (Horizontal)
Blower Option 5 – Variable Speed ECM- Backward Inclined, Standard																						
Water Coil Option C – Copper, Uninsulated D – Copper, Insulated																						

Note:

- 1- 575V option requires a factory installed stepdown transformer.
- 2- Premium Controls Option includes electronic expansion valve (EEV).



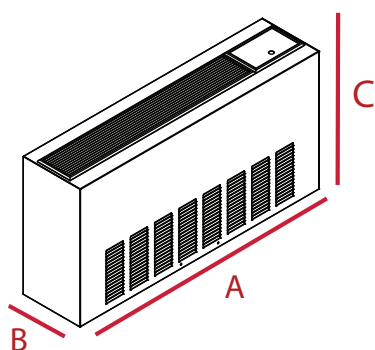
All Aston Series XL Series products are safety listed under UL 60335-2-40 through ETL, and performance listed with AHRI in accordance with ASHRAE/ANSI/AHRI/ISO Standard 13256-1.

ASTON SERIES LOW SILL - 0.75-1.5 TON

Water-to-Air Heat Pump

Standard Features

- Slope and Flat top configurations
- Footprint matches “legacy” products for easy retrofits
- Attractive rounded corners heavy gauge cabinet
- Quiet rotary compressors in all models
- 2-dimension refrigerant piping vibration loops to isolate the compressor
- All interior cabinet surfaces including the compressor compartment are insulated with 1/2 in. [12.7mm] thick 1-1/2lb [681g] density, surface coated, acoustic type glass fiber insulation
- Removable compressor access panel
- High and low pressure refrigerant service ports
- Internal slide out blowers
- All refrigerant brazing is performed in a nitrogen environment
- Computer controlled deep vacuum and refrigerant charging system
- All joints are leak detected for maximum leak rate of less than 1/4 oz. per year



Model	Overall Cabinet Dimensions		
	A (WIDTH) in. [cm]	B (DEPTH) in. [cm]	C (HEIGHT) in. [cm]
009-012	45.1 [114.6]	10.8 [27.4]	22.5 [57.2]
015-018	50.0 [127.0]	12.8 [32.4]	22.5 [57.2]

Perfect for classrooms, offices, hotels, or any room without ductwork, the Aston Series Low Sill delivers cutting edge heating and cooling technology. A single speed rotary compressor is the heart of the console, which is available in a variety of cabinet and piping configurations. It features the ability to operate across a wide range of loop temperatures and its footprint is designed to match “legacy” consoles for easy retrofitting.

1	2	3	4	5-7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24-26
<u>G</u>	<u>3</u>	<u>C</u>	<u>C</u>	<u>012</u>	<u>B</u>	<u>R</u>	<u>0</u>	<u>*</u>	<u>N</u>	<u>1</u>	<u>C</u>	<u>N</u>	<u>L</u>	<u>A</u>	<u>A</u>	<u>N</u>	<u>N</u>	<u>S</u>	<u>1</u>	<u>1</u>	<u>SSS</u>

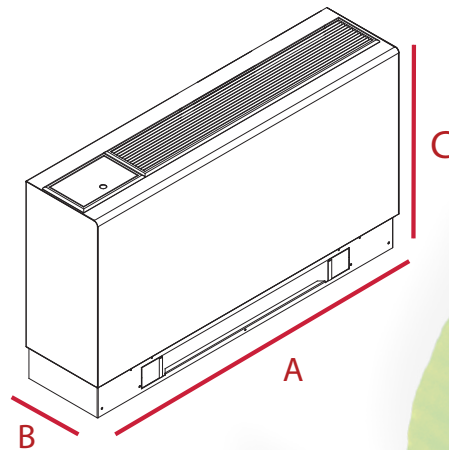
NOTES:
1 - Chassis only available with left piping option.

ASTON SERIES CONSOLE - 0.75-1.5 TON

Water-to-Air Heat Pump

Standard Features

- Slope and Flat top configurations
- Extended cabinet options
- Footprint matches “legacy” products for easy retrofits
- Attractive rounded corners heavy gauge cabinet.
- Quiet rotary compressors in all models
- 2-dimension refrigerant piping vibration loops to isolate the compressor
- All interior cabinet surfaces including the compressor compartment are insulated with 1/2” [12.7mm] thick
- 1-1/2lb [681g] density, surface coated, acoustic type glass fiber insulation
- 2 removable compressor access panels
- Separate air handler and compressor section access panels permit service testing without bypass
- Easy access to low voltage connector for easy thermostat wiring (remote & thermostat option)
- Quick attach wiring harnesses are used throughout for fast servicing
- High and low pressure refrigerant service ports
- Internal slide out blowers
- All refrigerant brazing is performed in a nitrogen environment
- Computer controlled deep vacuum and refrigerant charging system
- All joints are leak detected for maximum leak rate of less than 1/4 oz. per year
- Computer bar code equipped assembly line insures all components are correct
- All units are computer run-tested with water to verify both function and performance



Model	Overall Cabinet Dimensions		
	A (WIDTH)	B (DEPTH)	C (HEIGHT)
009-012	45.0 [114.3]	10.8 [27.3]	25.7 [65.2]
015-018	50.0 [127.0]	12.3 [31.1]	25.7 [65.2]

The Aston Series Console provides cutting edge technology in heating and cooling for commercial applications, using the latest in component and design technology. Single speed rotary compressors are the heart of the system. Also included are oversized coaxial water-to-refrigerant heat exchangers and durable all-aluminum air coils for high efficiencies at low face velocities.

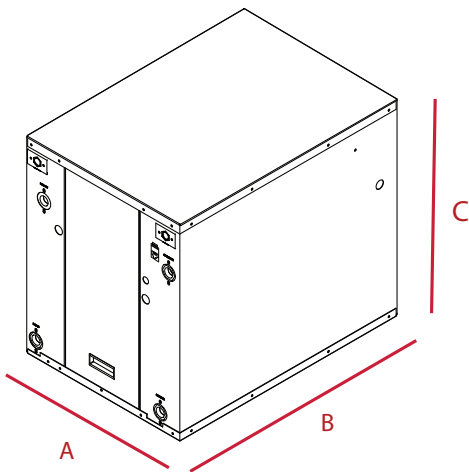
1	2	3	4	5-7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24-26																										
G	5	C	C	012	B	R	0	*	N	1	C	N	L	A	A	N	N	S	1	1	SSS																										
Brand G – GeoStar				Model 5 – 500 Series				Type C – Console				Cabinet Configuration¹ C – Chassis Only W – Chassis with Cabinet S – Chassis Slope Top				Capacity 009, 012, 015, 018				Refrigerant B – R454B				Compressor Type R – Rotary				Voltage 0 – 208-230/60/1 2 – 265/60/1				Vintage * – Factory Use				Motorized Outside Air Damper (Field Installed) N – None M – Motorized Damper				Blower Option 1 – Variable Speed ECM				Water Coil Option C – Copper, Uninsulated D – Copper, Insulated N – CuproNickel, Uninsulated P – CuproNickel, Insulated			

ASTON SERIES SINGLE HYDRONIC - 2-5 TON

Water-to-Water Heat Pump

Standard Features:

- High efficiency copper coaxial heat exchanger
- Field switchable control box (end to end) for application flexibility
- Insulated and corrosion resistant cabinet to reduce noise
- Aurora Base Controls
- Dual isolation compressor mounts to reduce noise and vibration
- Captive FPT water connections eliminate ‘egg-shaping’ backup wrench
- Discharge Muffler Helps quiet compressor gas pulsations
- Optional Hot Water Generator available on 040
- High efficiency copper or cupronickel coaxial heat exchangers
- Full refrigerant suction tube, heat exchanger, and waterline insulation to prevent condensation at low loop temperatures
- High efficiency scroll compressors for improved reliability
- Compressor sound blankets for reduced noise
- Standard waterlines out the front (field switchable to back via control box)



Model	Overall Cabinet Dimensions		
	A (WIDTH) in. [cm]	B (DEPTH) in. [cm]	C (HEIGHT) in. [cm]
24	19.5 [49.5]	23.5 [59.7]	26.1 [66.3]
48	22.0 [55.9]	31.0 [78.7]	26.2 [66.5]
60	22.0 [55.9]	31.0 [78.7]	26.2 [66.5]

Large oversized water-to-water refrigerant heat exchangers and scroll compressors provide extremely efficient operation.
The Aurora Controls extend this innovation and performance.

	1	2	3	4	5-7	8	9	10	11	12	13	14	15	16	17	18-20	21	22	23	24-26
	G	1	D	S	024	S	N	1	3	*	*	N	A	0	N	CC0	N	N	N	SSS
Brand G – GeoStar																				Non-Standard Options SSS – None
Model 1 – 100 Series																				Future Option N – None
Type 1 D – Potable Water Condenser Heating Only H – Heating Only W – Water-to-Water Heat Pump																				Future Option N – None
Cabinet Configuration S – Standard Cabinet																				Future Option N – None
Unit Capacity (MBTUH) 024, 048 060																				Water Control Option 3 CC0 – Copper Source/Load Coaxes NN0 – Cupronickel Source/ Load Coaxes
Compressor Type S – Single Stage Scroll																				Future Option N – None
Compressor Feature N – None																				Hot Water Generation 2 0 – None 1 – Hot Water Generation with Field Installed Pump
Number of Circuits 1 – One Circuit																				Control Option A – Aurora Base Control
Voltage 0 – 208-230/60/1 (Commercial) 2 – 265/60/1 (024 only) 3 – 208-230/60/3 (048-060 only) 4 – 460/60/3 5 – 575/60/3 (048-060 only)																				Electrical Option N – None
Vintage * – Factory Use																				Revision A – Current

Notes:

1 – Potable Hot Water available on 024 only.

2 – Available on 048, and 060 only. Hot water generator requires field installed external pump kit.

3 – G1DS024 heating only models are available only with copper double wall vented load coax for potable water, and are not designed to be converted to dedicated cooling units.



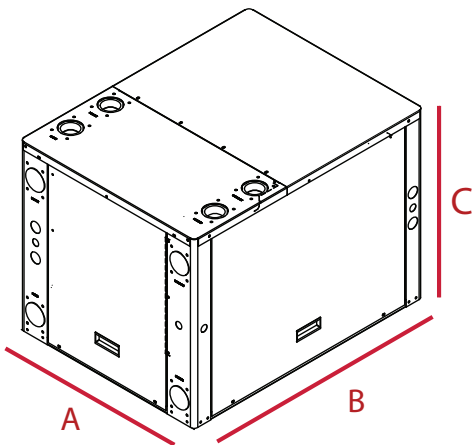
All Aston Series Single Hydronic series product are safety listed under UL 60335-2-40 through ETL, and performance listed with AHRI in accordance with ASHRAE/ANSI/AHRI/ISO Standard 13256-2.

ASTON SERIES DUAL HYDRONIC - 10-15 TON

Water-to-Water Heat Pump

Standard Features

- Single phase is up to 15 tons
- Heavy gauge cabinet
- Quiet scroll compressors in all models
- Two-dimension refrigerant piping vibration loops to isolate the compressor
- All interior cabinet surfaces are insulated with 1/2 in. [12.7 mm] thick 1-1/2 lb [681 g] density, surface coated, acoustic type glass fiber insulation
- Field switchable control box
- Aurora Controls
- Ultra-compact cabinet
- Optional top or back mounted water lines
- Multi-density laminate lined compressor blanket designed to suppress low frequency noise
- Removable compressor access panels
- Quick attach wiring harnesses are used throughout for fast servicing
- High and low pressure refrigerant service ports
- 10" industrial touch screen HMI for easy diagnostics and commissioning
- All refrigerant brazing is performed in a nitrogen purge environment
- Computer controlled deep vacuum and refrigerant charging system
- All joints are leak detected for maximum leak rate of less than 1/4 oz. per year
- Computer bar code equipped assembly line insures all components are correct
- All units are computer run-tested with water to verify both function and performance



Model	Overall Cabinet Dimensions		
	A (WIDTH) in. [cm]	B (DEPTH) in. [cm]	C (HEIGHT) in. [cm]
120-180	25.58 [64.97]	33.6 [85.3]	24.01 [60.99]

The Aston Series Dual Hydronic is designed to meet the high-volume water demands of today’s commercial buildings. Aston Series Dual Hydronic units provide high capacity heating and cooling performance, but still deliver the features building owners have come to expect from our Aston line.

	1	2	3	4	5-7	8	9	10	11	12	13	14	15	16	17	18-20	21	22	23	24-26
	G	1	W	M	180	S	N	1	3	*	*	A	H	1	N	00T	N	N	N	SSS
Brand G – GeoStar																				Non-Standard Options SSS – None
Model 1 – 100 Series																				Future Option N – None
Type W – Water-to-Water																				Future Option N – None
Cabinet Configuration M – Medium Enclosure																				Future Option N – None
Unit Capacity (MBTUH) 120, 180																				Water Control Option 00B – Back Mounted Connections 00T – Top Mounted Connections
Compressor Type S – Single Stage Scroll																				Future Option N – None
Compressor Feature N – None																				Control Box Location 1 – Front 2 – Back
Number of Circuits 2 – Two Circuits																				Control Option H – Aurora Premium Control
Voltage 1 0 – 208-230/60/1 3 – 208-230/60/3 4 – 460/60/3 5 – 575/60/3																				Electrical Option N – None
Vintage * – Factory Use																				Revision * – Factory Use

Notes:
1 – Voltage Option 0 requires dual power feed.



All Aston Series Dual Hydronic Series products are safety listed under UL 60335-2-40 through ETL, and performance listed with AHRI in accordance with ASHRAE/ANSI/AHRI/ISO Standard 13256-2.

Aurora Controls Platform

Aurora Control Network (ACN)

The Aurora Control Network (ACN) is a sophisticated, communicating control platform designed with a modular approach to deliver powerful features that are fit for use on a wide range of applications such as standard fixed-speed, water-source heat pumps, variable speed compressor technology up to dedicated outdoor air system (DOAS) units with exhaust air energy recovery. What makes ACN so powerful is modularity, ability to communicate, and firmware that is developed for each application. ACN is a complete commercial comfort control system that brings all aspects of the HVAC system into one cohesive module network. Each Aurora module will contain logic to control all features connected to it.

The Aurora Control functions on 4-wire communication done through the ModBus protocol that is an open source protocol that has become more popular with equipment manufacturers for use in HVAC equipment. The Aurora has one slave 'bus' for the microprocessor boards and accessory devices on which it communicates.

Here are the main devices of that make up the Aurora Control Network:



Aurora Base Control (ABC)

Aurora Base Control (ABC) is the main board that controls the basic functions of compressor, fan motor, RV, thermostat and other basic component control.



Aurora Interface Diagnostic (AID) Tool

Aurora Interface Diagnostic (AID) Tool is a hand held device that can be plugged into any ABC board for quick setup, configuration, diagnostic and troubleshooting capability.



Thermostats

Communicating thermostat models are available for connection to the Aurora System with varying features such as faults in plain English, color touch screen option, USB photo capability, etc.



IntelliZone2 (IZ2)

IntelliZone2 (IZ2) is added to the system but requires the AXB for a dedicated communication port specifically designed for the IZ2. IZ2 allows for up to 6 zones with variable speed compressors. This option cannot be used when the unit is equipped with UPC option.

Optional Accessories - Thermostats

A wide array of thermostats are available for the standalone operation of the system. These include both 24VAC traditional thermostats as well as 4 wire communicating versions.

1.


TPCC32U03

2.


TP32U03-05

3.


TPCC32U02

4.


TP32S01-02

5.


TA32V01C-06C

	Illustration	Heat/Cool Stages	Color/BW	Programmable	Touch-screen	Text Based	Fault Flash	Comfort Talk	Dual Fuel	Humidity	4 Wire	Ext Sensor	Communicating	BACnet
TPCC32U03	1	3/2	Color	•	•	•	•	•	•	•	•	•	•	
TP32U03	2	3/2	BW	•	•	•	•	•	•	•	•	•	•	
TP32U04	2	3/2	BW	•	•	•	•	•	•	•	•	•	•	
TP32U05	2	3/2	BW	•	•	•	•	•	•	•	•	•	•	
TPCC32U02	3	3/2	Color	•	•	•	•	•	•	•	•	•	•	
TPCM32U03A	2	3/2	BW	•	•	•	•	•	•	•	•	•	•	
TPCM32U04A	2	3/2	BW	•	•	•	•	•	•	•	•	•	•	
TP32S01	4	3/2	BW	•	•	•	•	•	•	•	•	•	•	
TP32S02	4	3/2	BW	•	•	•	•	•	•	•	•	•	•	
TA32V01C	5	3/2	BW							•		•		
TA32V02C	5	3/2	BW							•		•		
TA32V03C	5	3/2	BW							•		•		•
TA32V04C	5	3/2	BW	•						•		•		
TA32V05C	5	3/2	BW	•						•		•		
TA32V06C	5	3/2	BW	•						•		•		•

NOTE: All thermostats include auto changeover function.

IntelliZone2 Commercial Comfort Zoning Systems

Commercial properties come with complex heating and cooling challenges—especially in multi-use buildings with a variety of spaces, purposes, and zones. To maximize a property’s potential, GeoStar’s IntelliZone2 Comfort Zoning System makes it easy to control and regulate temperatures in multiple zones.

With the IntelliZone2 system, a single water source heat pump can be used to support up to four zones, which utilizes less equipment for a lower total cost. With fewer units needed, more space is available in the mechanical room and can be used for other purposes.

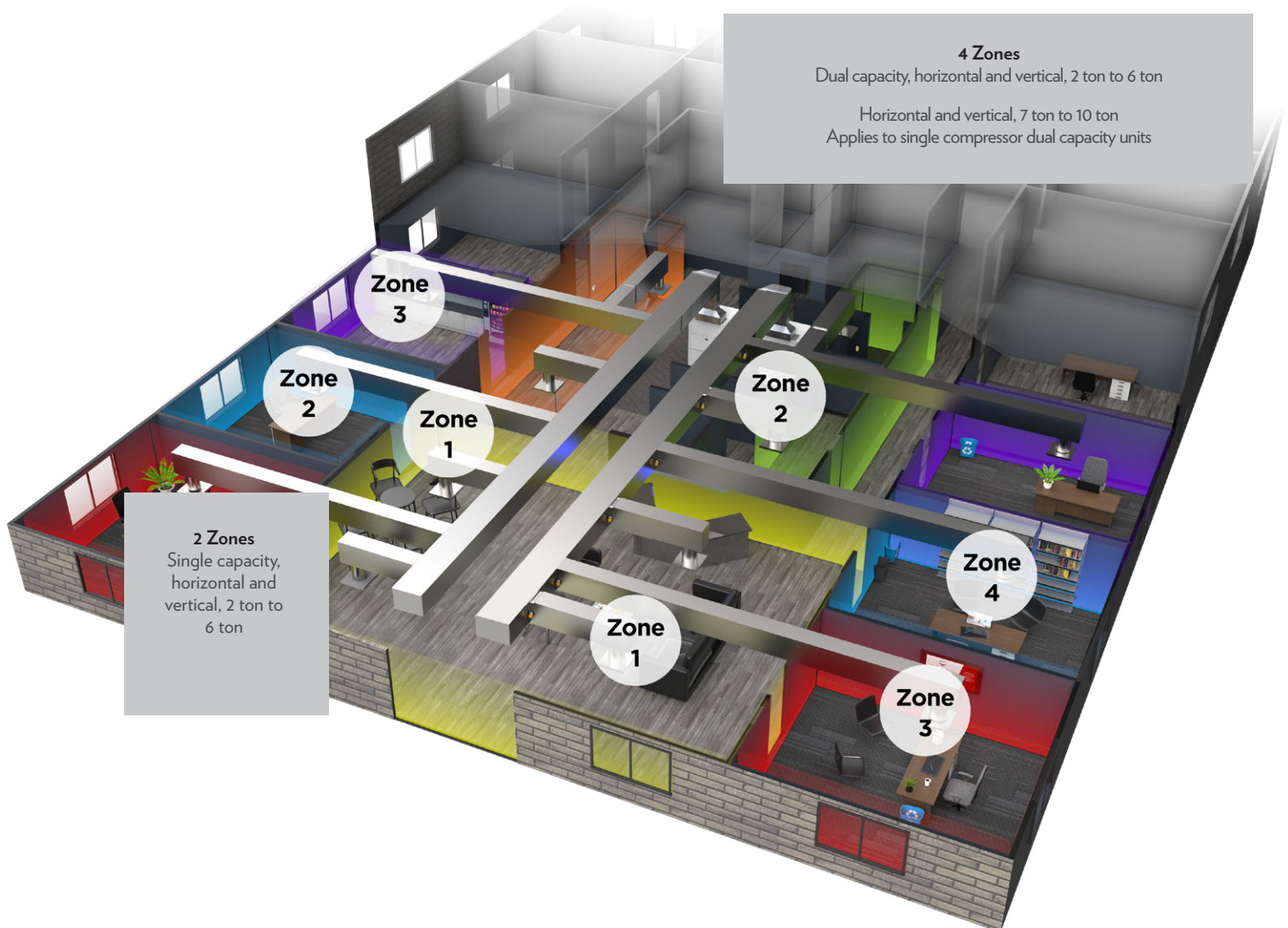
A BACnet version is available for the IntelliZone2 system. It offers seamless integration into building automation systems for multi-zone control in more complex commercial properties.

Best of all, unlike zoning control equipment made by other manufacturers, the IntelliZone2 Comfort Zoning System was engineered and designed by and for GeoStar—providing peace of mind and reliable performance with GeoStar water source heat pumps.

The IntelliZone2 System is compatible with a wide range of water source heat pumps, including:



Aston Series Compact



IntelliZone2 Components



IntelliZone2 Relay Board (Firmware Version 2.01 or Later)

The IntelliZone2 relay board provides basic relay logic for the damper operation and serves as a common connection point for all IntelliZone2 thermostats and the heat pump.



IntelliZone2 MainStat

The IntelliZone2 MainStat is the master control for the system and has all of the programming for operation. It is a 4.3 in. communicating color touch screen device that also functions as a zone thermostat for Zone 1. Optional remote sensor capability is also available.



IntelliZone2 ZoneStat (Optional)

The IntelliZone2 ZoneStat is a zone thermostat option for any of Zones 2 through 4. It has full setback capability and communicates to the IntelliZone2 system.



IntelliZone2 SensorStat (Optional)

The IntelliZone2 SensorStat is a zone thermostat option for any of Zones 2 through 4. It has full setback capability (through the MainStat interface only) and communicates to the IntelliZone2 system.



IntelliZone2 Outdoor Sensor

The IntelliZone2 Outdoor Sensor measures the outdoor temperature and communicates to the IntelliZone2 system. This temperature is displayed on the MainStat, and also used to balance response as well as auxiliary electric heat use. The Outdoor Sensor is included in every IntelliZone2 kit.



TPCC32U02 (Optional) (Firmware Version 3.01 or Later)

The TPCC32U02 is a 4.3 in communicating color touch screen device that can be used as a zone thermostat for zones 2 through 4. It has full set back capability and communicates to the IntelliZone2 System.



SensorStat-Remote-Kit (Optional)

The SensorStat-Remote-Kit is an option for an invisible thermostat installation and communicates with the IntelliZone2 relay panel. The kit will include the SensorStat Remote, TSU03 (mud in sensor) and wire nuts. This kit will monitor the zone temperature in zones 2 through 4. All set point adjustments are made at the MainStat.

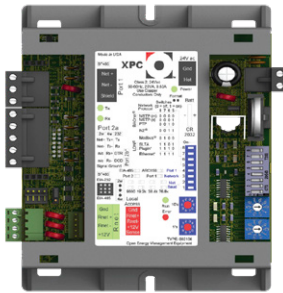
IntelliZone2 BACnet Components

(Available through Commercial Representatives)



IntelliZone2 BACnet Zoning Board

The IntelliZone2 BACnet zoning board is the master control for the system, has much of the programming for operation, provides basic relay logic for the damper operation and serves as a common connection point for the IntelliZone2 XPC Control and the heat pump.



IntelliZone2 BACnet XPC Control

The IntelliZone2 BACnet XPC Control provides the BACnet interface for the system to the BAS. It is a communicating device that connects to all zone sensors.



IntelliZone2 BACnet Zone Sensors

The IntelliZone2 BACnet Zone Sensors are used for all zones. Sensors are available with humidity, CO2 and VOC options as well as with and without temperature display and setpoint adjustment controls.

Note: Only one zone sensor with a CO2 or VOC option may be used per system.



IntelliZone2 Damper System

The IntelliZone2 BACnet Damper Systems come in round or rectangular construction with 2 or 3-wire actuators.

Brought to you by:

PC1550EG 01/25



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