ASTON SERIES XL

COMMERCIAL UNITS

GEOSTAR

AFFORDABLE RENEWABLE CLEAN

BIG JOBS. BIG SAVINGS. LITTLE WORRIES.

You're interested in being as efficient as possible — providing extremely comfortable heating and cooling while improving your bottom line. GeoStar units will provide just that; we pride ourselves on dedication to innovation and quality.

The Aston Series XL is the perfect solution for large zones in commercial and institutional applications. These extended range units for geothermal applications are available in three horizontal sizes and seven vertical sizes and offer an array of additional features. Using the Johnson Controls FX10 microprocessor allows the unit to achieve maximum performance. The Aston Series XL provides high efficiency, superb performance and reliability.

ASTON SERIES XL
SIZES AND PERFORMANCE

SIZE

7-25 TONS

EFFICIENCY

3.4-4.2 COP

16.2-21.0 EER

VERTICAL DIMENSIONS

MODEL	A	B	C
080	58″	61.3″	37.0″
095	58″	61.3″	37.0″
120	58″	61.3″	37.0″
160	68″	88.1″	37.0″
180	68″	88.1″	37.0″
240	68″	88.1″	37.0″
300	68″	88.1″	37.0″

Note: 37″ width includes filter rack. Unit cabinet is 34" wide.

HORIZONTAL DIMENSIONS

MODEL	A	B	C
080	24.5″	92.5″	37.3″
095	24.5″	92.5″	37.3″
120	24.5″	92.5″	37.3″

PRIMARY FEATURES

✓ **COMPRESSOR:** Includes two high efficiency Copeland scroll compressors with internal overload protection. Sound kits utilize compressor blankets for quiet operation.

✓ **COAXIAL HEAT EXCHANGER:** Dual oversized and convoluted with copper inner tube (optional cupronickel) and steel outer tube designed for maximum heat transfer at normal and low water flow rates to minimize pressure drop and enhance freeze protection.

✓ **FILTER RACK:** Factory-installed 2" wide air filter bracket. Filter removal can be done from either side. An optional MERV13 air filter is available.

✓ **AIR COIL:** A large face, rifled copper tubes and enhanced corrugated lanced aluminum fins provide high efficiencies at low face velocities. A FormiShield™ Plus coating is a standard feature providing additional protection against formicary corrosion.

✓ **REFRIGERANT CIRCUIT:** Units utilize R-410A refrigerant in sealed circuits. Metering is accomplished with a bi-flow thermostatic expansion valve to deliver optimum flow over a wide range of conditions without troublesome check valves. Four-way solenoid activated reversing valve defaults to heating and is "cool brazed" at the factory.

✓ **CABINET:** A heavy gauge, environmentally friendly galvanized steel provides a great resistance against corrosion. All access panels feature lift out handles for ease of maintenance.

✓ **BLOWER MOTOR:** Fans are belt driven, double width, double inlet forward curved with dynamically balanced wheel. Motors are permanently lubricated with thermal overload protection. Drive includes fixed pitch blower sheave and variable pitch motor sheave sized for 115% of fan brake horsepower.

✔ **PIPING:** Supply and return water connections utilize 1 ¼″ or 2″ copper NPT fittings, securely mounted flush to the cabinet corner post. All internal piping including coaxial heat exchanger is insulated to prevent condensation during operation with low entering water temperatures. Low temperature soldered to prevent misshaping or weakening.

✔ **CONTROLS:** Includes an FX10 microprocessor control.

✔ **ADDITIONAL OPTIONS:**

- Multiple discharge air locations on both vertical and horizontal models
- Multiple blower/motor combinations for a wide range of CFM and air side static pressure ranges
- Stainless steel drain pans

AHRI/ASHRAE/ISO 13256-1

Belt Drive Motor
English (IP) Units

Model		Flow Rate		Water Loop Heat Pump				Ground Water Heat Pump				Ground Loop Heat Pump			
				Cooling EWT 86°F		Heating EWT 68°F		Cooling EWT 59°F		Heating EWT 50°F		Cooling EWT 77°F		Heating EWT 32°F	
		gpm	cfm	Capacity Btuh	EER Btuh/W	Capacity Btuh	COP	Capacity Btuh	EER Btuh/W	Capacity Btuh	COP	Capacity Btuh	EER Btuh/W	Capacity Btuh	COP
Horizontal	GX080	22.0	2600	73,000	15.5	77,700	4.7	79,000	22.5	65,800	4.2	76,000	17.7	51,300	3.5
	GX095	24.0	3200	85,500	15.6	91,000	4.8	95,000	23.0	78,000	4.3	91,200	18.1	61,600	3.5
	GX120	28.0	3600	113,000	13.8	140,600	4.6	129,000	21.9	115,000	4.1	119,500	16.2	89,000	3.4
Vertical	GX080	22.0	2600	76,000	16.5	85,000	5.0	84,000	24.2	71,000	4.4	83,000	19.7	55,000	3.7
	GX095	24.0	2800	91,000	17.2	100,000	5.2	101,000	25.7	83,000	4.6	95,000	19.6	65,000	3.8
	GX120	28.0	3600	115,000	15.5	136,000	5.1	135,000	24.3	107,500	4.4	122,000	18.0	83,000	3.6
	GX160*	35.0	5000	166,000	18.9	154,000	5.1	178,000	25.3	130,000	4.6	171,000	21.0	97,000	3.7
	GX180*	45.0	5600	180,000	17.1	190,000	5.0	187,000	22.2	149,000	4.3	185,000	18.5	109,000	3.4
	GX240*	60.0	7600	240,000	16.3	296,000	5.2	264,000	22.5	237,000	4.6	246,000	17.4	184,000	3.8
	GX300*	75.0	9500	284,000	17.3	353,000	5.4	314,000	24.5	286,000	4.8	291,000	19.0	224,000	4.2

12/09/08

Belt Drive Motor:
Cooling capacities based upon 80.6°F DB, 66.2°F WB entering air temperature
Heating capacities based upon 68°F DB, 59°F WB entering air temperature

** Ratings for models GX160-300 are outside the scope of the AHRI Water to Air/Brine to Air Heat Pumps Certification Program*

Physical Characteristics

Model	Horizontal			Vertical						
	080	095	120	080	095	120	160	180	240	300
Compressor (2 each)	Copeland Scroll			Copeland Scroll						
Factory Charged R410A, oz [kg] (per circuit)	72 [2.04]	82 [2.32]	114 [3.23]	80 [2.26]	92 [2.60]	114 [3.23]	160 [4.54]	162 [4.59]	246 [6.97]	250 [7.09]
Belt Drive Motor & Blower										
Fan Motor-HP [W]	1.5 [1120]	2.0[1492]	3.0 [2238]	1.0 [746]	1.5 [1120]	2.0 [1492]	1.5 [1120]	1.5 [1120]	2.0 [1492]	3.0 [2238]
Blower Wheel Size (Dia x W), in. [mm]	12 x 12 [305 x 305]	12 x 12 [305 x 305]	12 x 12 [305 x 305]	15 x 11 [381 x 280]	15 x 11 [381 x 280]	15 x 11 [381 x 280]	15 x 11 (2) [381 x 280]	15 x 11 (2) [381 x 280]	15 x 11 (2) [381 x 280]	15 x 11 (2) [381 x 280]
Coax and Water Piping										
Water Connections Size - FPT - in [mm]	1 1/4 [3.75]	1 1/4 [3.75]	1 1/4 [3.75]	1 1/4 [3.75]	1 1/4 [3.75]	1 1/4 [3.75]	2 [50.8]	2 [50.8]	2 [50.8]	2 [50.8]
HWG Connection Size - FPT - in [mm]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Coax & Piping Water Volume - gal [l]	2.87 [10.85]	3.20 [12.13]	3.46 [13.11]	2.87 [10.85]	3.20 [12.13]	3.46 [13.11]	6.50 [24.61]	6.50 [24.61]	7.00 [26.50]	7.00 [26.50]
Air Coil & Filters										
Air Coil Dimensions (H x W), in. [mm]	20 x 35 [508 x 889]	20 x 40 [508 x 1016]	20 x 40 [508 x 1016]	28 x 25 (711 x 635)	32 x 25 (813 x 635)	36 x 25 (915 x 635)	40 x 40 (2) [1016 x 1016]	40 x 40 (2) [1016 x 1016]	40 x 40 (2) [1016 x 1016]	40 x 40 (2) [1016 x 1016]
Air Coil Total Face Area, ft2 [m2]	9.74 [0.91]	11.11 [1.03]	11.11 [1.03]	9.72 (0.90]	11.10 (1.03)	12.50 (1.16)	22.22 [2.06]	22.22 [2.06]	22.22 [2.06]	22.22 [2.06]
Air Coil Tube Size, in [mm]	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)
Air Coil Number of rows	3	3	3	3	3	4	3	3	3	3
Filter Standard - 2" [50.8], in [mm]	20 x 20 (3) [508 x 508] 20 x 25 (1) [508 x 635]	20 x 20 (3) [508 x 508] 20 x 25 (1) [508 x 635]	20 x 20 (3) [508 x 508] 20 x 25 (1) [508 x 635]	28 x 36 (2) (711 x 914)	28 x 36 (2) (711 x 914)	28 x 36 (2) (711 x 914)	40 x 42 (2) (1016 x 1067)	40 x 42 (2) (1016 x 1067)	40 x 42 (2) (1016 x 1067)	40 x 42 (2) (1016 x 1067)
Weight - Operating, lb [kg]	700 [318]	796 [361]	843 [382]	644 [292]	762 [346]	849 [385]	1175 [533]	1195 [542]	1350 [612]	1400 [635]
Weight - Packaged, lb [kg]	690 [313]	785 [356]	830 [376]	620 [281]	735 [333]	820 [372]	1180 [535]	1200 [544]	1355 [614]	1405 [637]

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