



# CellarPro Air Handlers and Split Systems

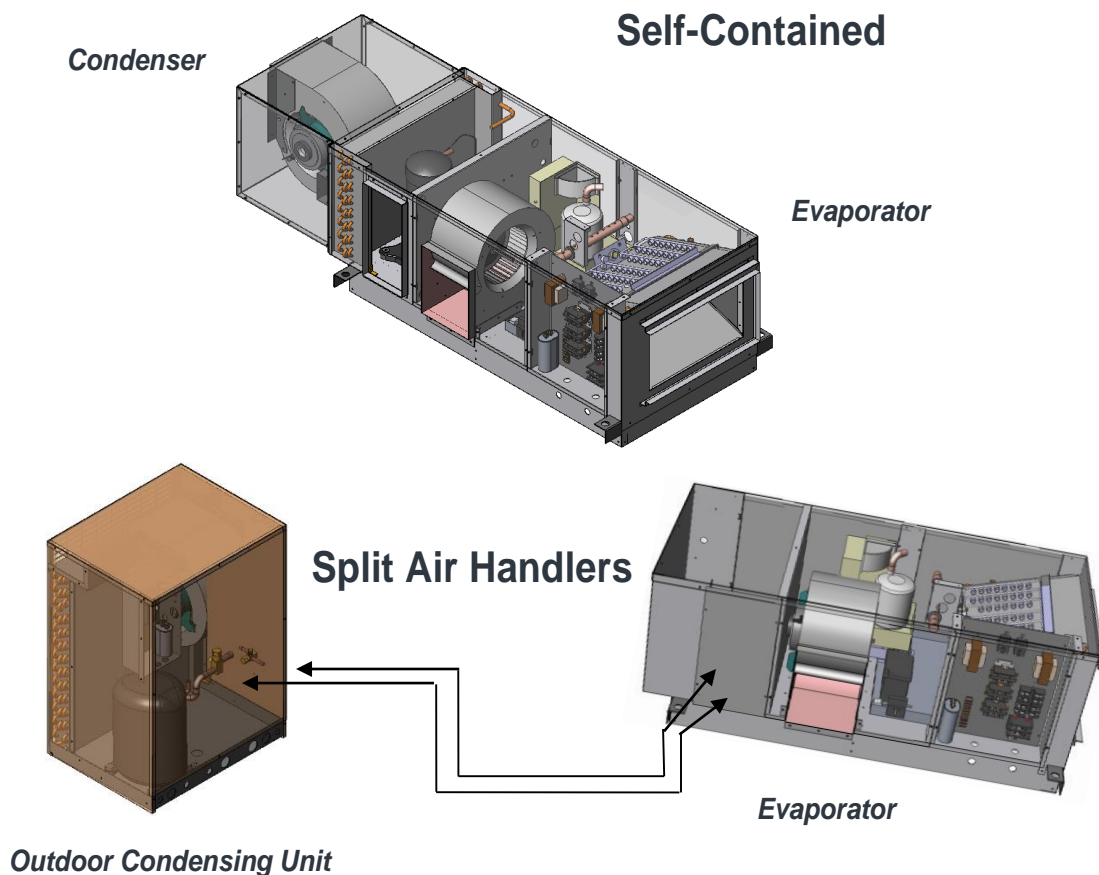
**AH 18-36**

For Larger Cellars - Residential & Commercial

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# CellarPro Product Nomenclature – Larger Systems

		AH	-	36	-	SC
<b>Cabinet Configuration / Size</b>						
AH	=	Air Handler				
<b>Nominal Cooling Capacity</b> (BTUH at 55°F Cellar Temp)						
18	=	15,000 / 1.5 Ton				
24	=	17,500 / 2 Ton				
30	=	23,500 / 2.5 Ton				
36	=	26,250 / 3 Ton				
<b>Method of Cooling / Configuration</b>						
SC	=	Self-Contained Air Cooled			1.5 To 3 Ton	
Sx	=	Split With Remote Air Cooled Condensing Unit - Exterior			1.5 To 3 Ton	

## CellarPro Standard Design Features

Our larger cellar systems use the same approach of optimizing compressor size, fin spacing and coil size, and blower air fan. The goal is to minimize impact on humidity, handle higher loads, yet keep consistent temperatures. We offer a wide array of modifications, such as networkable controller, humidifier, and heater.

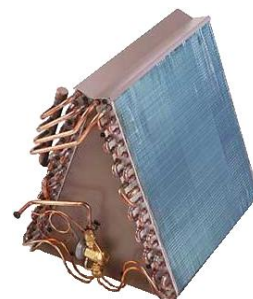
### Cabinet

The housing is manufactured from aluminum for light weight, corrosion resistance and aesthetics. The cabinet is structurally reinforced throughout to provide a stable and secure platform for the components.

The evaporator section is insulated with high density, 4 lb thermal and acoustical insulation and sealed with self-extinguishing gasket material. Panels are fastened with quick release hardware to simplify internal access.

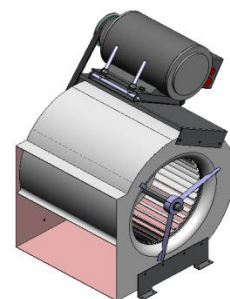
### A-Frame Coil

The unit has a large face area coil to increase cooling efficiency and reduce power consumption. The copper tube, aluminum fin coil is mounted in a stainless steel condensate pan with a condensate safety switch to guards against condensate overflow.



### Blower and Blower Motor

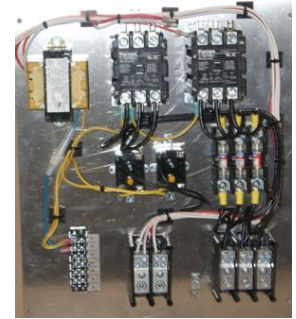
Our units incorporate a blower and motor in a draw-thru configuration for even air distribution across the coil. The large blower runs at a low rpm to minimize air noise and motor horse power consumption. The blower assembly is mounted to an internal chamber to further reduce noise levels.



# CellarPro Standard Design Features

## Electrical System

The electrical system has a Class 2, 24 VAC control circuit, all necessary contactors, fuses and/or circuit breakers for full operation. 24 VAC field connections and high voltage connections are provided through separate termination blocks in the electric box.

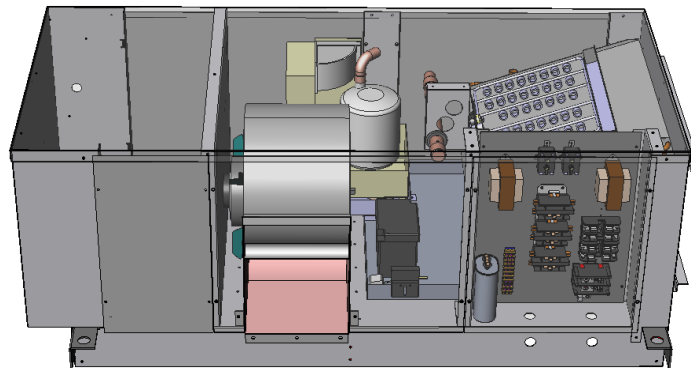


## Refrigeration System

The system includes all necessary components for safe and reliable operation. Easily accessible components include: thermal expansion valve, sight glass with moisture indicator, high and low pressure safety switches, refrigeration service access ports, and refrigerant drier/strainer.

**Self-contained** units are evacuated and shipped with a full refrigerant charge.

**Split systems** include a refrigerant pump-down solenoid to prevent liquid slugging. Units are evacuated and charged with dry nitrogen. Remote air cooled condensing unit enclosure is suitable for indoor or outdoor installations.



## Compressor

All systems incorporate scroll compressors for high reliability, high efficiency and low noise. Compressors are mounted on vibration isolators to minimize noise transmission to the cabinet.



## Ducted System

The system is available in three air patterns: ducted return and supply, ducted return and “free” air discharge, or “free” return and ducted discharge. “Free” air is possible on the condenser side only.

# CellarPro Optional Features

## Electrode Canister Humidifier

Integrated inside the unit, the humidifier provides humidification to your cellar. An optional electrode canister is available providing state-of-the-art humidity control. The humidifier senses cylinder current draw, automatically flushing and filling the cylinder to control the mineral content of the water and humidity output. The output is field adjustable from 1 to 5 lbs/hr. A “Change Cylinder” light alerts service personnel when the humidifier output requires service. Note: Internet accessible thermostat / humidistat is required for systems with the humidifier option.



## Condensate Pump options

**External:** The condensate pump is factory mounted, wired and integrated into the moisture removal system of the unit. In the event the condensate pump cannot remove the water fast enough, an emergency shut-off switch locks out the compressor and humidifier until the condensate pump has emptied its sump.

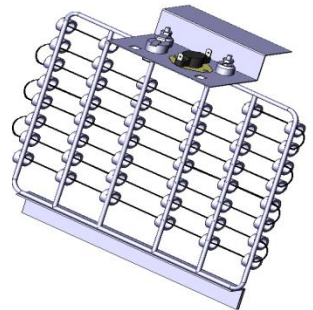


**Internal:** The condensate pump is factory mounted in the stainless steel condensate pan, wired and integrated into the moisture removal system of the unit. In the event the condensate pump cannot remove the water fast enough, an emergency shut-off switch locks out the compressor and humidifier until the condensate pump has emptied its sump.



## Electric Heat/Reheat

Electric reheat is designed to offset the cooling effect of the dehumidification cycle; electric heat provides resistance heat regardless of the dehumidification cycle. The unit incorporates a factory installed, wired and tested nichrome wire heater. The heater has low voltage thermal safety cutouts with automatic reset and a second power line fuse link (over-temperature) safety device for each bank of heat.



# CellarPro Optional Features

## Electronic Thermostat / Humidistat

Our standard temperature and humidity controller incorporates temperature and humidity control in an attractive, wall mounted unit. This line powered, backlit system incorporates several salient features:

- Manual override
- 7 day programming
- Programmable Fan
- Adjustable Differential
- Compressor Short Cycle Protection
- Air Filter Monitor
- 4 Hour reserve for settings
- Status Indicators
- Humidification in heat or air circulation modes
- Hidden Service Level
- Condensation Control



## Internet Accessible Thermostat / Humidistat

We also offer a networkable temperature and humidity controller, which incorporates temperature and humidity control in an attractive, wall mounted unit. This line powered, backlit system incorporates several salient features:

- Internet Connectivity For Monitoring, Management and Configuration Capability (requires secure customer internet access)
- Personalized Web Portal or Phone Apps
- Set Up Alerts and Service Reminders
- Manage Vacations / Building Shutdowns
- Change Your Preferences
- Easy Installation
- Backlit Graphic LCD display
- Energy Star & FCC Class B Compliant
- Adjustable Differential
- Displays the cellar humidity from 5%-95%
- When wired to the integrated humidifier, humidity levels can be set from 15-50% in 5% increments
- Compressor Short Cycle Protection
- E-Mail or Text Messaging
- View Reports of How Your HVAC System Is Performing
- View Your Program for The Day or The Week On One Screen
- Manage Multiple Thermostats From One Web Portal With No Annual Fee
- Independent Humidify and Dehumidify Control In Cooling and Heating Modes



## Alarms

- Air Filter Monitor
- Over/Under Temperature Alarm
- High/Low Humidity Alarm
- Customer Selected Contact Closure



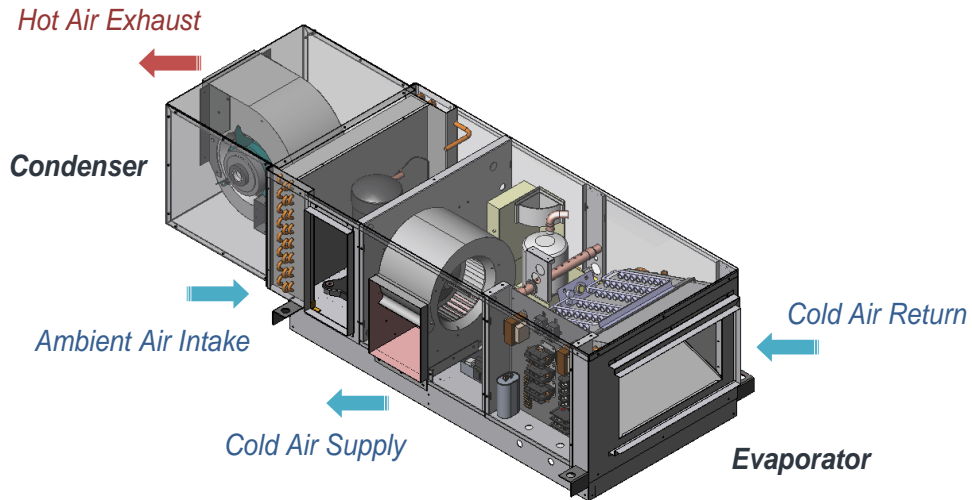
Smart Phone Apps



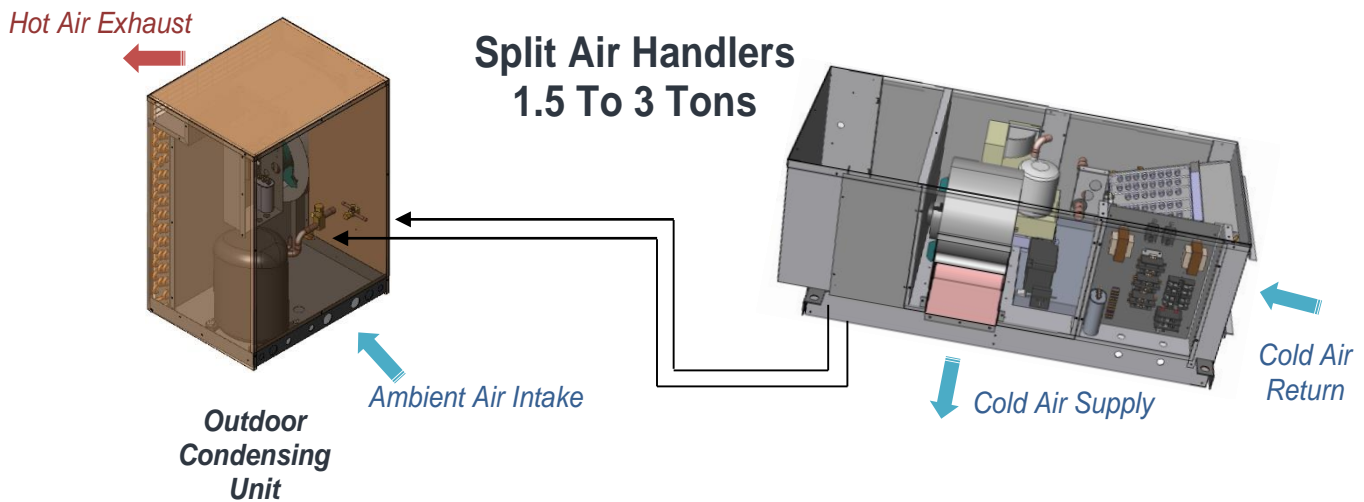
Personalized Web Portal

# Configuration Options and Airflow

## Self-Contained 1.5 To 3 Tons

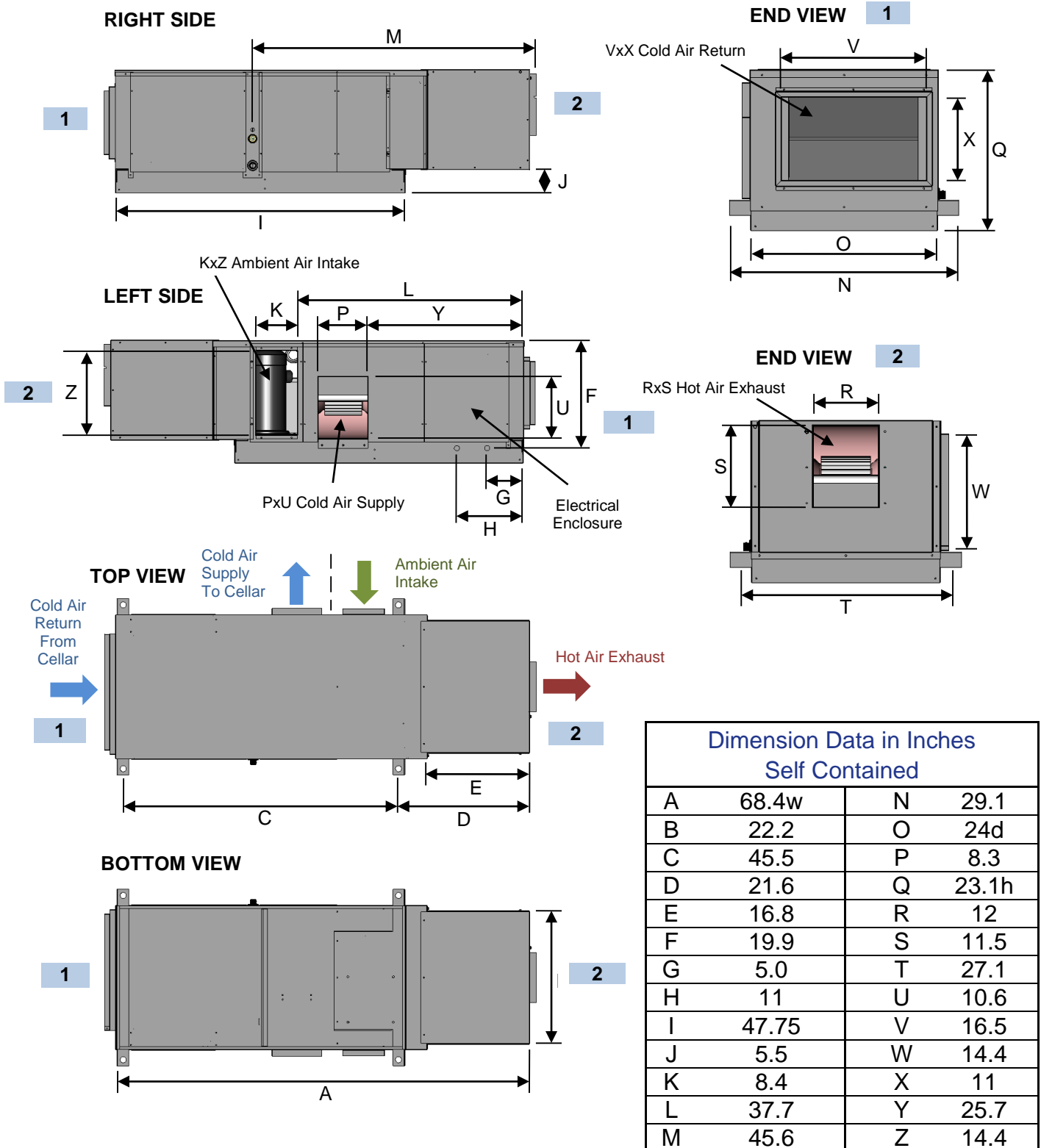


## Split Air Handlers 1.5 To 3 Tons



# Dimensional Data AH18-36SC

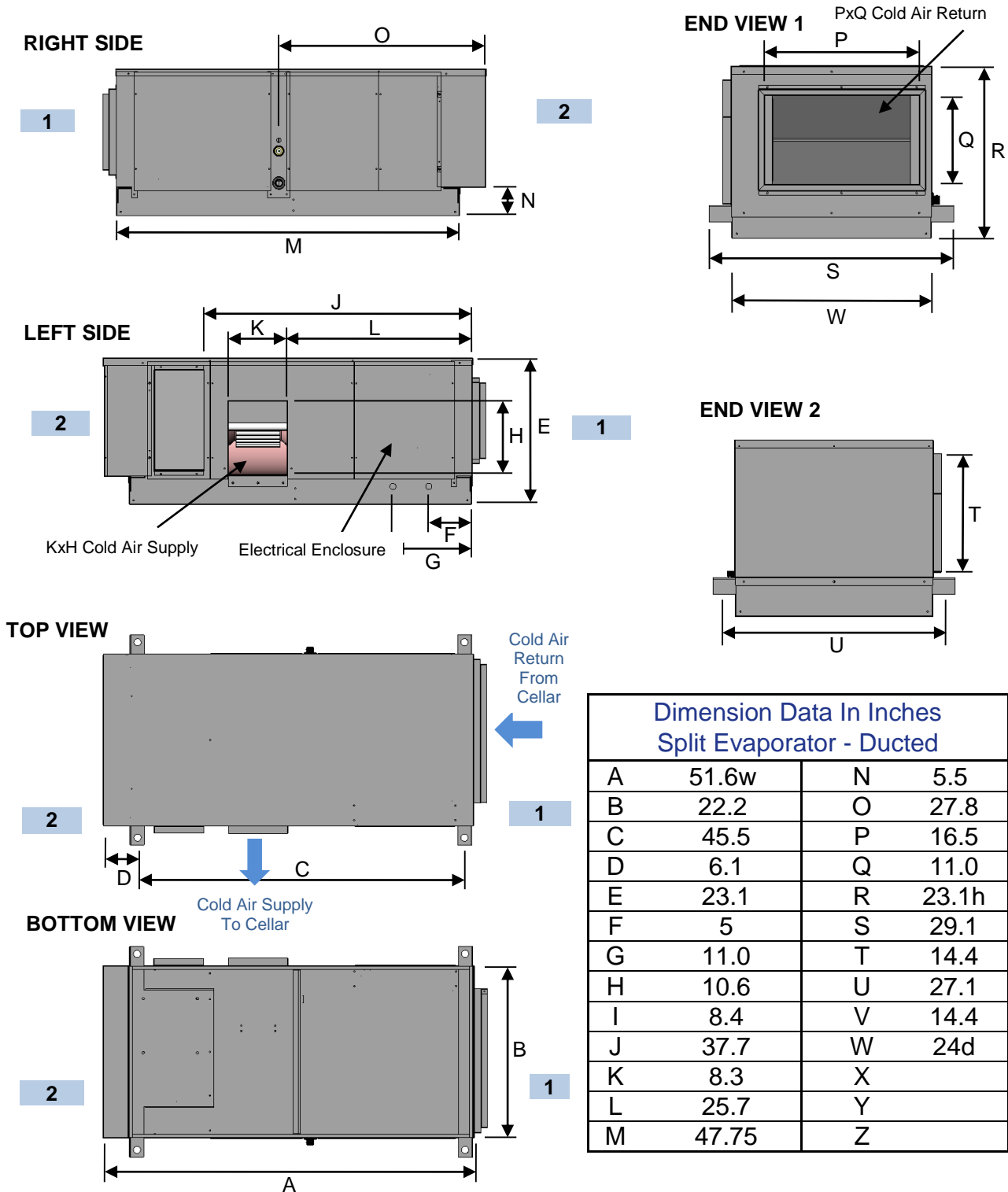
## Self-Contained Configuration





# Dimensional Data AH18-36Sx

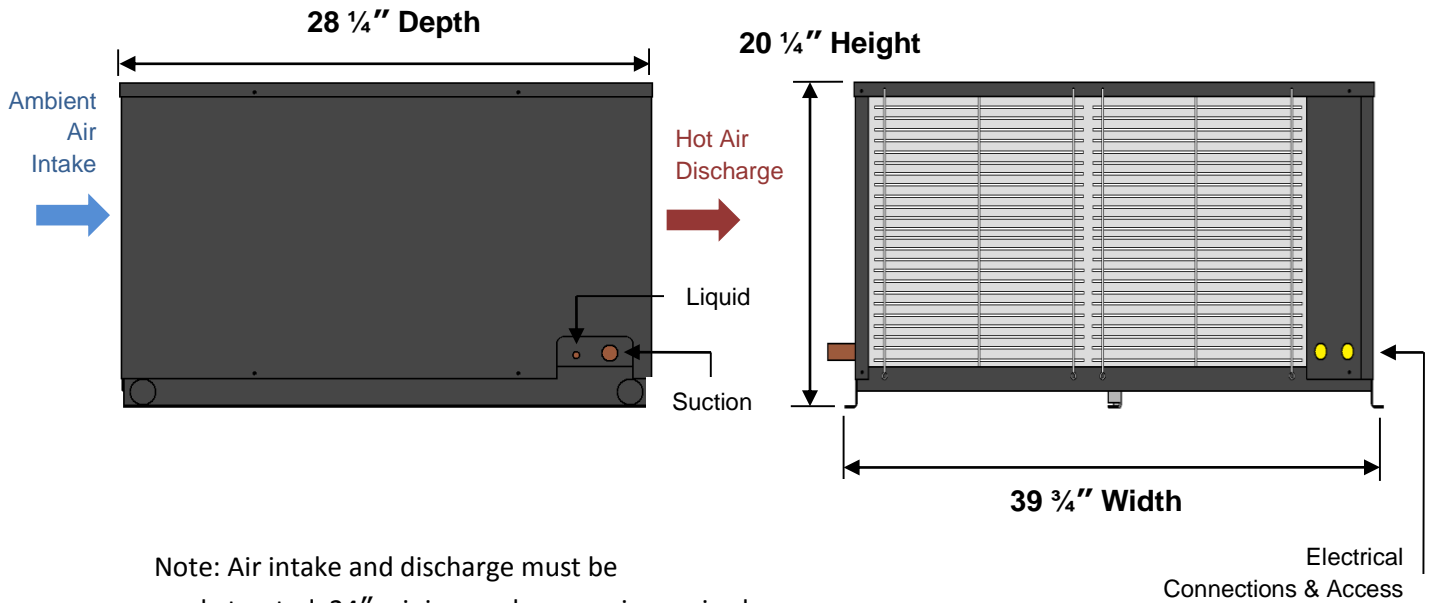
## Split Evaporator - Ducted Configuration





# AH 18-36 Sx

## Remote Condensing Unit Dimensions



## Air Cooled, Self-Contained System (Sc)

Cooling Capacity		18	24	30	36
55°F Cellar Temperature	Total Capacity	15,000	17,500	23,500	26,250

Blower Information		18	24	30	36
Evaporator Blower	CFM Free Discharge	750	800	1,200	1,400
	Motor HP	1/2	1/2	1/2	1/2
Condenser Blower	CFM @ 0.3" ESP	1,000	1,200	1,400	1,600
	HP	1/2	1/2	1/2	1/2

Coil Information		18	24	30	36
Evaporator Coil A-Frame Copper Tube Aluminum Fin	Rows	2	2	2	2
	Face Area	3.2	3.2	3.7	3.7
	Face Velocity, fpm	234.0	250.0	324.0	378.0
	Fins Per Inch	14	14	14	14
Condensing Coil Slab Copper Tube Aluminum Fin	Rows	2	2	2	2
	Face Area	3.2	3.2	3.7	3.7
	Face Velocity, fpm	234.0	250.0	324.0	378.0
	Fins Per Inch	16	16	16	16

Compressor Data		18	24	30	36
208-230/1/60	Nominal Horsepower	1.5 HP	2 HP	2.5 HP	3 HP
	Type	Scroll	Scroll	Scroll	Scroll
	Total Heat Rejection	25,750	31,160	38,980	43,800

Standard	All Units
Digital T-Stat (7 Day Programmable)	Yes
Vibration Mounts Hanging Mounts	Yes
Duct Flange Connection	Yes
Stainless Steel Condensate Drain Connection	1" ID

## Remote Air Cooled System – Split System (Sx)

Cooling Capacity		18	24	30	36
BTU / H @ 125°F Condensing					
55°F Cellar Temperature	Total Capacity	15,000	17,500	23,500	26,250

Blower Information		18	24	30	36
Evaporator Blower	CFM Free Discharge	750	800	1,200	1,400
	Motor HP	1/2	1/2	1/2	1/2

Coil Information		18	24	30	36
Evaporator Coil A-Frame Copper Tube Aluminum Fin	Rows	2	2	2	2
	Face Area	3.2	3.2	3.7	3.7
	Face Velocity, fpm	234.0	250.0	324.0	378.0
	Fins Per Inch	14	14	14	14

Condensing Unit		18	24	30	36
Model Number		GLX100H41-D	GLX150H41-D	GLX200H41-D	GLX300H41-D
	95°F Ambient, Fan Cycling Control Standard				

Compressor Data		18	24	30	36
208-230/1/60	Nominal Horsepower	1.5 HP	2 HP	2.5 HP	3 HP
	Type	Scroll	Scroll	Scroll	Scroll
	Total Heat Rejection	25,750	31,160	38,980	43,800

# Electrical Data

Humidification		All Units
Electrode Canister	Steam Output, lbs / hr	1-5 lbs/hr
	Power Consumption	1.7 kW / 8.1 amps
	Inlet Water Connection	1/4
	Weight	2.5 lbs.

Condensate Pump		All Units
Internal	Tube Connection	3/8 OD
	Factory Installed	Yes
	Mesh Filter	Yes
	Foot Head / Gal-Hour	5' / 3.75    10' / 3.0
	Reservoir	N/A
	Weight lbs	1.5
	AMPS	0.33
External	Tube Connection	1" OD
	Factory Installed	Yes
	Mesh Filter	N/A
	Foot Head / Gal-Hour	5' / 55    10' / 38
	Reservoir	N/A
	Weight lbs	1.5
	AMPS	0.89

Sx - 208-230/1/60		18	24	30	36
Compressor	RLA	9.0	13.5	14.1	17.9
	LRA	56.4	58.3	73.0	112.0
Evaporator	FLA	6	6	6	6
	HP	1/2	1/2	1/2	1/2
Condensing Fans	FLA	2	2	2	3.1
	HP	(2) x 1/4	(2) x 1/4	(2) x 1/4	(2) x 1/4
Remote Condensing Unit Power Supply	FLA	11	15.5	16.1	22.0
	MCA	15	18.0	19.0	24.0
	MOP	20	30	30	40
Evaporator Power Supply - Cooling	MCA	7.5	7.5	7.5	7.5
	MOP	15	15	15	15
Evaporator Power Supply w/ Heating	Heater kW	6	6	6	6
	Heater FLA	24.4	24.4	24.4	24.4
	MCA	31.9	31.9	31.9	31.9
	MOP	35	35	35	35
Evaporator Power Supply w/ Humidification	Humf. kW	1.7	1.7	SC 1.7	1.7
	Humf. FLA	8.1	8.1	SC 8.1	8.1
	MCA	15.6	15.6	SC 15.6	15.6
	MOP	20	20	SC 20	20
Evaporator Power Supply w/ Heating And Humidification	MCA	40.0	40.0	40.0	40.0
	MOP	45	45	45	45

<b>SC - 208-230/1/60</b>		<b>18</b>	<b>24</b>	<b>30</b>	<b>36</b>
Compressor	RLA	9.0	13.5	12.8	17.9
	LRA	48.0	58.3	64.0	112.0
Evaporator	FLA	6	6	6	6
	HP	1/2	1/2	1/2	1/2
Condensing Fans	FLA	8.5	8.5	8.5	8.5
	HP	1/2	1/2	1/2	1/2
System Power Supply - Cooling	FLA	23.5	28.0	27.3	32.4
	MCA	25.8	31.4	30.5	36.9
	MOP	30	40	40	50
Heating Option	Heater kW	6	6	6	6
	Heater FLA	24.4	24.4	24.4	24.4
	MCA	50.2	55.8	54.9	61.3
	MOP	55	65	65	75
Humidification Option	Humf kW	1.7	1.7	1.7	1.7
	Humf FLA	8.1	8.1	8.1	8.1
	MCA	33.9	39.5	38.6	45.0
	MOP	40	50	50	60
Heating and Humidification	MCA	58.3	63.9	63.0	69.4
	MOP calc	67.3	77.4	75.8	87.3
	MOP	65	75	75	85