



ASXS6/ASZS6

Energy Efficient Side Discharge Inverter System

AC / Heat Pump / Dual Fuel



PRECISE

COMFORT

AND VALUE



SLIM.

Flexibility and comfort

The Liberty side discharge unit is a cost-effective mid-efficiency system with a sleek and slim design. With the ability to connect to traditional ducted equipment and requiring as little as 4” of clearance space from a wall when installed, the versatility and convenience of the Liberty side discharge unit make it a great option for those looking to maximize their outdoor living space, without compromising on their indoor comfort.

- Flexible in design and installation to help meet the requirements of most projects.
- Can be installed as a wall-mounted unit or on a pad.
- Great for limited spaces (i.e., zero lot line, small patio, or outdoor spaces).
- With its slim design, contractors will appreciate the ease of transportation and installation.

UNIT DIMENSIONS	
1.5-3 TON	3.5-5 TON
W: 36.6”	W: 37”
D: 13.8”	D: 12.6”
H: 27.4”	H: 39”



MOUNT ON WALL



INSTALL ON PAD



SMART.

AC (ASXS6)



HEAT PUMP (ASZS6)



- 1 Variable-Speed DC Fan.**
High efficiency and low sound levels.
- 2 Blue Fin Corrosion Coating.**
- 3 7mm Coil.**
High heat exchanger efficiency and compact casing design.
- 4 Inverter Board Cooled by Refrigerant Circuit¹.**
Elimination of condenser fan pressure drop caused by heat sink used.

- 5 Swing Compressor.**
High efficiency/low sound levels.
- 6 Intelligent Defrost Mode.**
- 7 Advanced water-shedding drain pan.**

¹ Model specific, refer to product engineering manual for details.



SMART (CONT'D).



Intelligent defrost mode

The outdoor unit will enable this mode to help reduce frost/ice from building up in cold climate conditions. It will also help with longer heating operation time for additional comfort for occupants (compared to HVAC systems without this function).

- A selectable defrost backup heat option, when turned off, will lower power consumption during defrost.



Hot start technology

When the heating operation starts or when the unit changes from cooling to heating, there is no cold draft released into the room.



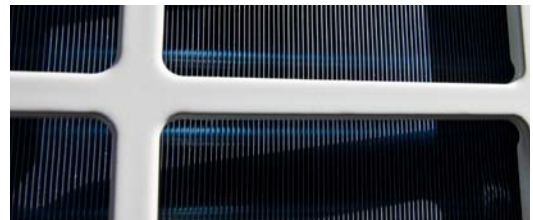
Advanced water-shedding drain pan technology

Engineered with multiple drain holes and channels to help provide effective water shedding.



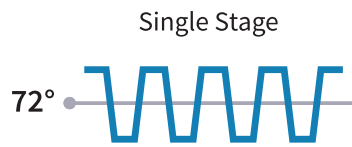
Blue fin corrosion coating

The Liberty side discharge unit features a 1000 hour salt spray rated coil as standard. This hydrophilic coating helps keep the coil clean.



Inverter technology

Driven by inverter technology, the Liberty side discharge unit adjusts its operation (according to the desired set-point) by regulating the compressor's speed to meet operational demands. As a result, the system can reach the desired set-point more quickly, maintain a more consistent indoor comfort level, and use less energy compared to traditional non-inverter systems.



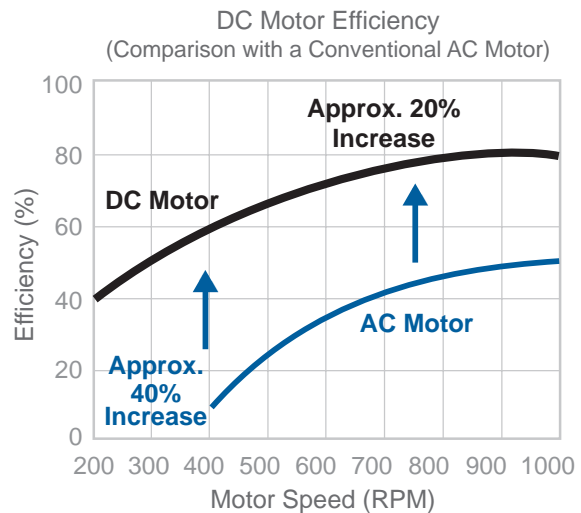
The ON/OFF operation may create abrupt temperature swings, impacting indoor comfort.



Minimizes the temperature swings often found with single-stage equipment, allowing for steady and consistent indoor comfort.

Digitally commutated motor

As an inverter system, the Liberty side discharge unit can offer additional energy and cost savings. How? The intelligent inverter (variable-speed) DC compressor helps maintain desired room temperatures while using less energy. This supports a reduction in energy consumption by up to 30% or more compared to traditional non-inverter systems.



Note: Data is based on studies conducted under controlled conditions at one of our laboratories.



SMART (CONT'D).

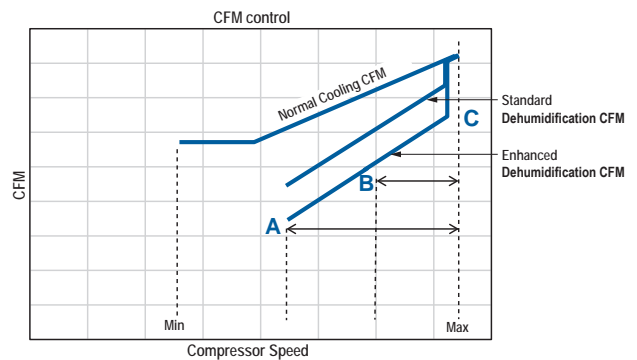
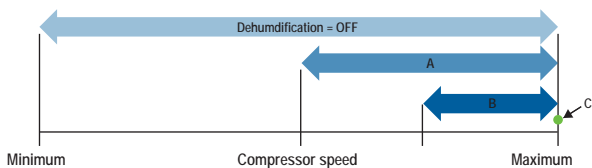


Dehumidification

With three levels of humidification, the Liberty side discharge system can be set up based on the geographical region and humidity levels.

- The suggested setting for most applications is option A or B.
- These settings control the speed of the compressor and the speed of the indoor blower to maximize the evaporator coil temperature while minimizing airflow. In short, minimizing airflow — maximum dehumidification.
- See below for a visual of the dehumidification mode.

DEHUMIDIFICATION LEVELS			
STANDARD	A	B	C
Improves dehum by lowering airflow	Max dehum with wide compressor and airflow range	Moderate dehum with reduced compressor and airflow range	Min dehum, compressor fixed at 100%, airflow @70%



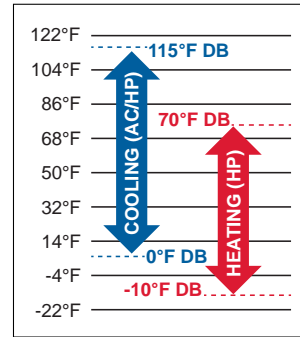


SMART (CONT'D).

Application range

Are you looking for a versatile HVAC solution that caters to single, two, or three-story homes with existing ductwork? The Liberty side discharge unit integrates with existing line sets and can connect up to 100 feet of pipe for typical installations. Its versatility makes it an ideal choice to help meet a broad range of application needs.

OPERATION RANGE



CLEAN COMFORT
INDOOR AIR ESSENTIALS



Clean Comfort Indoor Air Essentials can help improve the quality and comfort of your home's indoor air. Components can be installed on the Liberty side discharge system and in virtually any home or installation. Ask your Liberty dealer for more information!

PIPING RANGE

CONNECTING PIPING (maximum)							
1.5 - 5 TON							
LENGTH				HEIGHT			
100 FT.				90 FT.			
ALLOWABLE LINE SET DIAMETER							
UNIT TONS	LIQUID				SUCTION		
	1/4"	5/16"	3/8"	5/8"	3/4"	7/8"	1 1/8"
1.5	X	X	X	X	X		
2.0		X	X	X	X		
2.5		X	X		X	X	
3.0		X	X		X	X	
3.5			X			X	X
4.0			X			X	X
5.0			X			X	X
X	Allowable combination						
1	For marked combinations, if normal ambient operation temperature is less than 14°F, limit line set length to 50 ft. max.						
2	For marked combinations, line set length will have a minimum of 25 ft. and a maximum of 70 ft.						

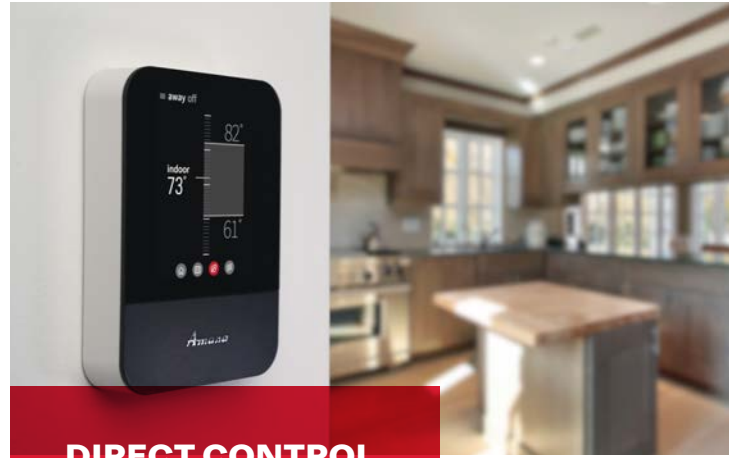
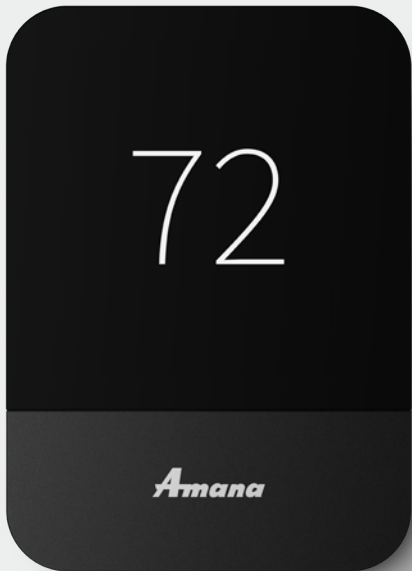
LEARN MORE AT
www.cleancomfort.com



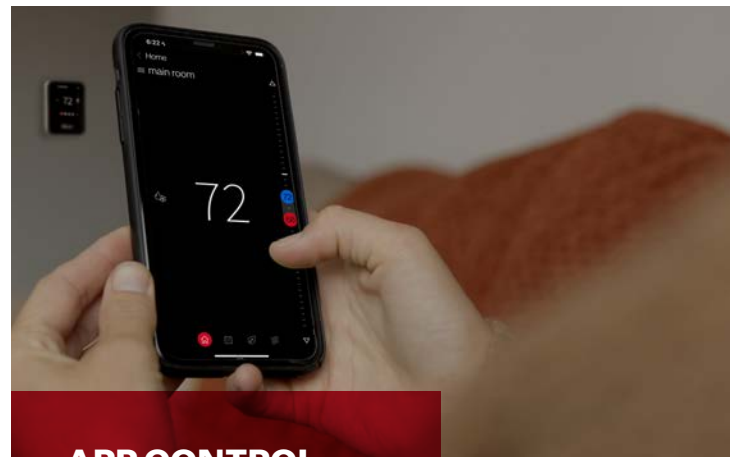
SMART (CONT'D).

Connected

With the connection to the **Amana**® brand smart thermostat, the Liberty side discharge is not only versatile but intelligent. With just a few touches on the screen, homeowners can adjust their settings with ease. But that's not all - homeowners also have the option to control their system via the **Amana** brand home app and compatible voice-activated devices (with a connection to Wi-Fi). So whether at home or away, homeowners can monitor and adjust their HVAC system, providing convenient and efficient control.



DIRECT CONTROL



APP CONTROL

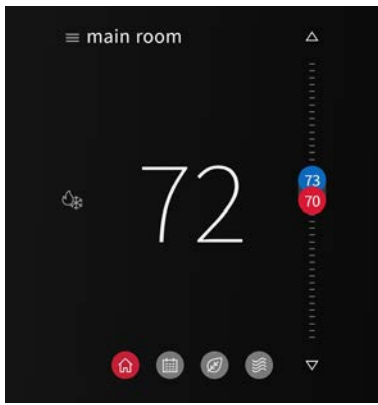


VOICE CONTROL



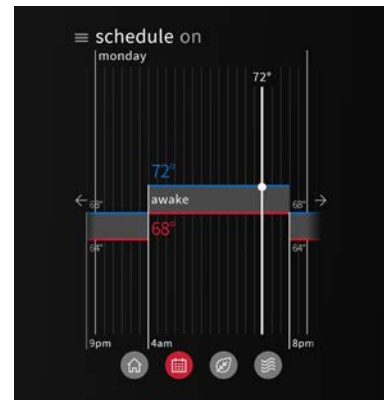
Home screen

A simple, central home screen displays the current temperature, the current mode, and a slider for adjusting the temperature. The top-level screens are accessible through icons at the bottom of this screen.



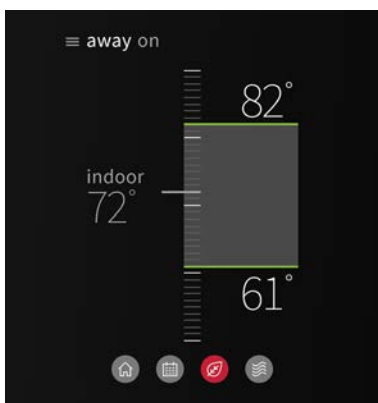
Schedule screen

The schedule screen displays upcoming set-point changes and scheduled times. Plus, it offers access to edit mode, where you can adjust the schedule using simple controls



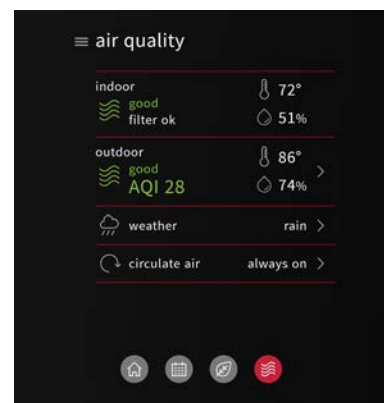
Away screen

When you're away from home, you can help keep energy consumption down with away mode. The away screen displays energy saving set-points that can be invoked manually or automatically, when the mobile app recognizes everyone is away.



Air quality screen

Know what's in the air around your home. The air quality screen displays outdoor air quality, and weather will be displayed when connected to the Internet when the thermostat is added in the mobile app under home location.

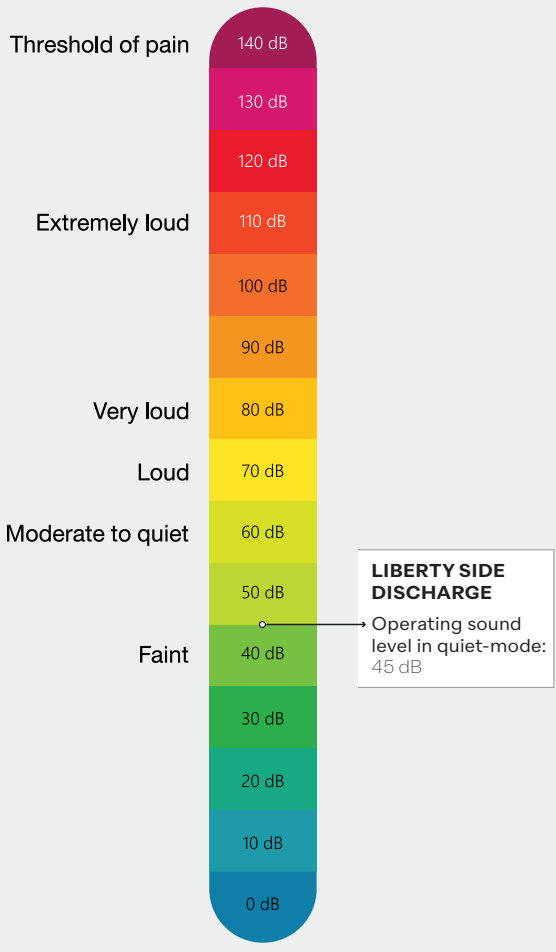




SOUND.

Relax with comfort

Enjoy tranquility both inside and outside the home! Whether relaxing in the living room, cooking in the kitchen, or enjoying a BBQ in the backyard, the Liberty side discharge unit features quiet-mode, swing compressor technology, and sound levels as low as 45 dB (in quiet-mode).



Quiet-Mode

This mode provides enhanced acoustical comfort. When activated (before sleep, etc.) homeowners will enjoy additional quiet within their space.



Proprietary swing compressor technology

Quiet and dependable. The smooth rotation with little friction allows for high operation efficiency, low vibrations, and low noise.



SAVINGS.

Take pride in your investment

The purchase of an indoor comfort system is an important investment! Considering the many factors involved, the Liberty side discharge unit offers a range of features that help align with cost, efficiency, and overall peace of mind.

- **Efficiency**

AC: Up to 17.2 SEER2

HEAT PUMP: Up to 17.5 SEER2 / Up to 8.5 HSPF2

- **Inverter driven**

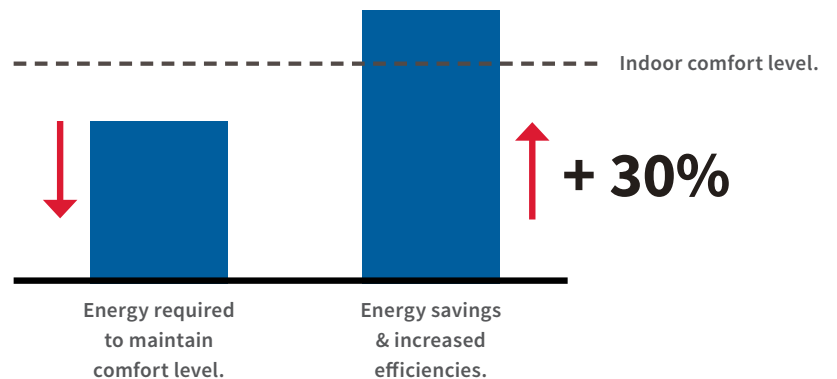
The Liberty side discharge unit can offer an increase in efficiency by up to 30% or more compared to traditional non-inverter systems. This results in further opportunities to save on monthly energy bills for years to come.

- **Outstanding Limited Warranties**

Take comfort with a 10-year parts and a Lifetime Unit Replacement limited warranties.



* Complete warranty details available from your local dealer or at www.libertyhvac.com. To receive the Lifetime Unit Replacement Limited Warranty (good for as long as you own your home) and 10-Year Parts Limited Warranty, online registration must be completed within 60 days of installation. Online registration is not required in California or Quebec. The duration of warranty coverages in Texas differs in some cases.



Extended service plans available

For even greater peace of mind, ask your dealer for more details about AsureSM, an affordable Parts and/or Labor Extended Service Plan for your entire Liberty HVAC system.



SPECIFICATIONS.

LIBERTY SIDE DISCHARGE - AC OUTDOOR UNIT

	ASXS6 S1810A*	ASXS6 S2410A*	ASXS6 S3010A*	ASXS6 S3610A*	ASXS6 S4210A*	ASXS6 S4810A*	ASXS6 S6010A*	ASXS6 01810A*	ASXS6 02410A*	ASXS6 03010A*	ASXS6 03610A*
CAPACITIES (AHRI RATED)											
Max. Cooling (BTU/h)	16,600	22,200	27,800	33,600	39,500	45,000	53,000	16,600	22,200	27,800	32,400
AMBIENT OPERATION RANGE COOLING (°FDB(°CDB))	0 to 115 (-17.8 to 46.1)										
COMPRESSOR											
Type	Swing	Swing	Swing	Swing	Swing	Swing	Swing	Swing	Swing	Swing	Swing
RLA	10.0	13.4	16.8	16.8	25.5	25.5	26.9	10.0	13.4	16.8	16.8
CONDENSER FAN MOTOR											
Horsepower	0.09	0.09	0.20	0.20	0.36	0.36	0.36	0.09	0.09	0.20	0.20
FLA	1.15	1.15	2.00	2.00	1.63	1.63	1.63	1.15	1.15	2.00	2.00
REFRIGERATION SYSTEM											
Refrigerant Line Size ¹											
Liquid Line Size ("O.D.)	¾"	¾"	¾"	¾"	¾"	¾"	¾"	¾"	¾"	¾"	¾"
Suction Line Size ("O.D.)	¾"	¾"	¾"	¾"	1½"	1½"	1½"	¾"	¾"	¾"	¾"
Refrigerant Connection Size											
Liquid Valve Size ("O.D.)	¾"	¾"	¾"	¾"	¾"	¾"	¾"	¾"	¾"	¾"	¾"
Suction Valve Size ("O.D.)	¾"	¾"	¾"	¾"	¾"	¾"	¾"	¾"	¾"	¾"	¾"
Valve Connection Type	Front Sealing	Front Sealing	Front Sealing	Front Sealing	Front and Back Sealing	Front and Back Sealing	Front and Back Sealing	Front Sealing	Front Sealing	Front Sealing	Front Sealing
Refrigerant Charge (oz.)	76	76	79	85	111	111	131	76	76	79	85
Expansion Device	EEV	EEV	EEV	EEV	EEV	EEV	EEV	EEV	EEV	EEV	EEV
Superheat at Service Valve	Auto-control	Auto-control	Auto-control	Auto-control	Auto-control	Auto-control	Auto-control	Auto-control	Auto-control	Auto-control	Auto-control
Subcooling at Service Valve	10±1°F	12±1°F	14±1°F	15±1°F	8±1°F	9±1°F	9±1°F	10±1°F	12±1°F	14±1°F	13±1°F
ELECTRICAL DATA											
Voltage / Phase (60 Hz)	208-230/1	208-230/1	208-230/1	208-230/1	208-230/1	208-230/1	208-230/1	208-230/1	208-230/1	208-230/1	208-230/1
Minimum Circuit Ampacity ²	14.6	18.8	23.9	23.9	34.4	34.4	36.2	14.6	18.8	23.9	23.9
Max. Overcurrent Protection ³	15	20	25	25	35	35	40	15	20	25	25
Min / Max Volts	197/253	197/253	197/253	197/253	197/253	197/253	197/253	197/253	197/253	197/253	197/253
Electrical Conduit Size	½"	½"	½"	½"	½" or ¾"	½" or ¾"	½" or ¾"	½"	½"	½"	½"
EQUIPMENT WEIGHT (LBS)	119	119	129	133	163	163	174	119	119	129	133
SHIP WEIGHT (LBS)	133	133	143	148	183	183	196	133	133	143	148

¹ Tested and rated in accordance with ANSI/AHRI Standard 210/240

² Wire size should be determined in accordance with National Electrical Codes; extensive wire runs will require larger wire sizes

³ Must use time-delay fuses or HACR-type circuit breakers of the same size as noted.

NOTES

- » Always check the S&R plate for electrical data on the unit being installed.
- » Installer will need to supply ¾" to 1½" adapters for suction line connections.
- » Unit is charged with refrigerant for 15' of ¾" liquid line. System charge must be adjusted per Installation Instructions Final Charge Procedure. (See table below for allowable line set diameter)



LIBERTY SIDE DISCHARGE - HEAT PUMP OUTDOOR UNIT							
	ASZS6 01810A*	ASZS6 02410A*	ASZS6 03010A*	ASZS6 03610A*	ASZS6 04210A*	ASZS6 04810A*	ASZS6 06010A*
CAPACITIES (AHRI RATED)							
Max. Cooling (BTU/h)	16,600	22,200	27,800	33,600	39,500	45,000	53,000
Max. Heating (BTU/h)	17,400	23,200	28,800	34,600	40,000	45,500	54,500
AMBIENT OPERATION RANGE							
COOLING (*FDB(*CDB))	0 to 115 (-17.8 to 46.1)						
HEATING (*FDB(*CDB))	-10 to 70 (-23.3 to 21.1)						
COMPRESSOR							
Type	Swing	Swing	Swing	Swing	Swing	Swing	Swing
RLA	10.0	13.4	16.8	16.8	25.5	25.5	26.9
CONDENSER FAN MOTOR							
Horsepower	0.09	0.09	0.20	0.20	0.36	0.36	0.36
FLA	1.15	1.15	2.00	2.00	1.63	1.63	1.63
REFRIGERATION SYSTEM							
Refrigerant Line Size ¹							
Liquid Line Size ("O.D.)	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"
Suction Line Size ("O.D.)	3/4"	3/4"	7/8"	7/8"	1 1/8"	1 1/8"	1 1/8"
Refrigerant Connection Size							
Liquid Valve Size ("O.D.)	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"
Suction Valve Size ("O.D.)	3/4"	3/4"	7/8"	7/8"	7/8"	7/8"	7/8"
Valve Connection Type	Front Sealing	Front Sealing	Front Sealing	Front Sealing	Front and Back Sealing	Front and Back Sealing	Front and Back Sealing
Refrigerant Charge (oz.)	81	81	88	88	118	118	127
Expansion Device	EEV	EEV	EEV	EEV	EEV	EEV	EEV
Superheat at Service Valve	Auto-control	Auto-control	Auto-control	Auto-control	Auto-control	Auto-control	Auto-control
Subcooling at Service Valve	10±1°F	12±1°F	14±1°F	15±1°F	8±1°F	9±1°F	9±1°F
ELECTRICAL DATA							
Voltage / Phase (60 Hz)	208-230/1	208-230/1	208-230/1	208-230/1	208-230/1	208-230/1	208-230/1
Minimum Circuit Ampacity ²	14.6	18.8	23.9	23.9	34.4	34.4	36.2
Max. Overcurrent Protection ³	15	20	25	25	35	35	40
Min / Max Volts	197/253	197/253	197/253	197/253	197/253	197/253	197/253
Electrical Conduit Size	1/2"	1/2"	1/2"	1/2"	1/2" or 3/4"	1/2" or 3/4"	1/2" or 3/4"
EQUIPMENT WEIGHT (LBS)	122	122	132	137	168	168	179
SHIP WEIGHT (LBS)	137	137	147	151	185	185	198

¹ Tested and rated in accordance with ANSI/AHRI Standard 210/240

² Wire size should be determined in accordance with National Electrical Codes; extensive wire runs will require larger wire sizes

³ Must use time-delay fuses or HACR-type circuit breakers of the same size as noted.

NOTES

» Always check the S&R plate for electrical data on the unit being installed.

» Installer will need to supply 3/8" to 1 1/8" adapters for suction line connections.

» Unit is charged with refrigerant for 15' of 3/8" liquid line. System charge must be adjusted per Installation Instructions Final Charge Procedure.

(See table below for allowable line set diameter)



**COMPATIBLE
INDOOR UNITS.**



AHVE Multi-position, Variable-speed Air Handler

- **Multi-position AHU:**
Upflow/downflow, and horizontal left/right orientations.
- **SmartFrame™ Sub-Structure**
- **7mm All Aluminum Evaporator Coil:**
 - Outstanding heat transfer properties
 - Improve refrigerant balance between the Indoor and Outdoor units.
- **Variable-speed Electrically Commutated Motor (ECM):**
 - Provides gradual startup and shutdown for unobtrusive

operation with lower energy consumption (compared to units without an ECM motor).

- Constant low-speed operation for outstanding filtration and comfort levels.
- **Electronic Expansion Valve:**
 - Better utilization of the Evaporator.
 - Wide operation range.
- **Communicating:**
Compatible with the Amana brand smart thermostat and other communicating Liberty brand equipment.



80%, 96%, or 97% AFUE Communicating Gas Furnaces

- **Durable heat exchanger:**
Unique tubular stainless-steel construction formed using wrinkle-bend technology results in an extremely durable heat exchanger. Paired with a stainless-steel secondary heat exchanger, this combination provides for reliability, durability and efficiency.
- **Modulating gas valve:** Operates between 35% - 100% capacity, providing precise efficiency and the ultimate in comfort.

- **Continuous air circulation:**
Provides filtration and keeps air moving throughout your home to help maintain comfort.
- **Self-diagnostic control board:**
Continuously monitors the system for consistent, reliable operation.
- **Quiet, variable-speed induced draft blower:**
Provides precise control and enhanced energy-efficient performance as compared to single-speed blowers.



MBVC Modular Blower

- Communicating (Compatible with the Amana® brand smart thermostat and other communicating Liberty brand equipment).
- Variable-speed ECM indoor blower motor.
- Provides constant CFM over a wide range of static pressure conditions independent of duct system.
- CFM indicator.
- Fault recall of six most recent faults.
- Built-in dehumidification feature.
- Blower section usable as an electric furnace.
- 21-inch-deep cabinet for easy attic access.
- Control board includes a blower time-delay in the cooling mode.
- Foil-faced insulation lines the cabinet to help reduce operating sound and cabinet condensation.
- Horizontal or vertical configuration.



All Aluminum EEV Coils

- Available in 1.5-Ton through 5-Ton capacities
- Engineered for compatibility with Liberty side discharge AC and Heat Pump units
 - CAPEA: Compatible with Liberty side discharge AC units
 - CHPE is for horizontal applications - compatible with Liberty side discharge AC units
- Electronic Expansion Valve (EEV) models feature
 - Compatibility with the Amana brand smart thermostat and other Liberty brand communicating equipment
 - Cooling and heat pump applications
 - Fault recall of six most recent faults
 - PID control loop for precision capacity control
- Seamless integration to full suite of Amana brand controls using communicating control board
- Air cleaner and humidifier integration capable (rules apply, refer to installation manual for details).
- UV and rust resistant, 5VA rated thermoplastic drain pan with integrated secondary drain
- Foil-faced insulation covers internal casing to reduce cabinet condensation
- Split seam front for easy installation and service access (except for CAPEA)
- Lightweight all aluminum evaporator coil
- Ships factory standard upflow with easy field conversion to downflow (CAPEA & CAPE)



www.libertyhvac.com



Additional information

Before purchasing this appliance, read important information about its estimated annual energy consumption, yearly operating cost, or energy efficiency rating that is available from your retailer.

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