

## Product Introduction

Bebco Split System Model SAC Air Conditioners and SHP Heat Pumps, as “ductless” or “mini-split” units have 9,000 to 36,000 BTUH cooling and heating capacities for small, large or multi-room buildings in classified and harsh environments.

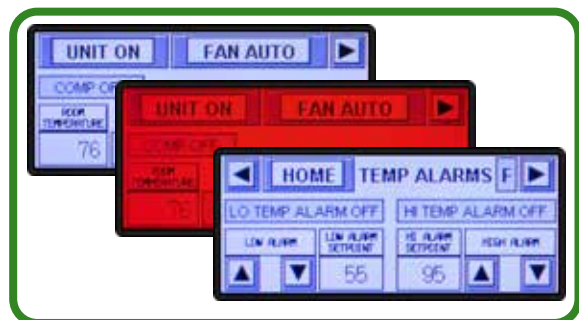
Bebco SAC and SHP Units are designed for industrial or highly corrosive environments, and require 230 VAC, Single Phase, 60 Hertz power sources. Typical applications include small, large or multiple room buildings containing electrical, pneumatic or analytical equipment where one or more units can work alone, in tandem or for redundancy to provide required cooling force.

Model SAC and SHP Condenser Units feature an economy grade epoxy coated steel case or commercial grade 304 or 316 brushed stainless steel case with coated coils. These options make Bebco Model SAC and SHP Condenser Units suitable for a wide range of industrial environments, ranging from petrochemical refineries to highly corrosive atmospheres, such as wastewater treatment facilities, H2S or SO2 units and offshore exploration and drilling platforms.

Model SAP and SHP Evaporator Units are formed from impact resistant thermoplastic and galvanized steel, and are resistant to a broad range of corrosive environments.

## Unit Control & Rating Options

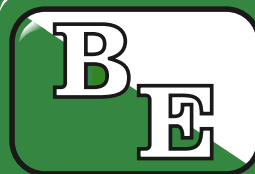
“B” Style Basic Controls are suitable for Unclassified Areas. “E” Style Eco Cool™ or Eco Pump™ Controls are suitable for pressurized or unclassified rooms or buildings in Class I, Div. 2 Group A-D Rated Areas. “S” Style Smart Cool™ or Smart Pump™ Controls are suitable for rooms or buildings with Class I, Div. 2 Group A-D Interior and Exterior Ratings.



**Smart Cool™ and Smart Pump™ Controls provide full control of all essential set points, a red flashing alarm screen, remote alarm device contacts and complete performance diagnostics!**

## Third Party Certification

Bebco Model SAC and SHP Units with “E” and “S” Controls are listed by the ETL Intertek Group for use in Class I, Division 2, Groups A-D Hazardous Locations. All Units are also third-party certified to comply with all applicable US & Canadian HVAC Performance Standards.



# Model SAC/SHP Split System Air Conditioners & Heat Pumps

**Class I, Division 2, Group A-D  
9,000-36,000 BTUH Capacity Units**

Technical Bulletin SAC/SHP TB-R3

© 12.20.2021

**Economical Painted Steel  
& Durable Stainless Steel  
Condenser Unit Cases**



Ask about our  
2 Year Unit Warranty &  
5 Year Coil Coating Warranty!



**Molded Plastic Evaporator Unit with  
Integrated Eco Pump™ Control  
Display & Hand-Held Remote!**



**9k, 12k, 18k, 24k & 36k  
capacities to satisfy any  
specific application!**

***A simple and extremely flexible solution to  
your critical air conditioning and heating needs!***



**Bebco Environmental**  
Hazardous & Industrial Climate Control Solutions

4725 Lawndale • La Marque, Texas 77568

Phone: 1.844.EXP.HVAC • 1.844.397.4822  
www.exphvac.com • sales@exphvac.com

## Product Applications

Bebco Model SAC and SHP Split System Air Conditioners and Heat Pumps are intended for industrial applications. Due largely to their vastly superior design, they are ideal for small control rooms, guard stations, laboratories, analyzer houses and other small to mid-size industrial facility buildings or rooms. Since these Units can be mounted quickly and easily, they are also extremely practical retrofit units to provide new or supplemental cooling and heating, and practical for multiple or large rooms if used in tandem.

Model SAC and SHP Units are offered with Basic Controls for Unclassified Areas and economical Eco Cool™ and Eco Pump™ Controls which are suitable for buildings or rooms that are pressurized or deemed to be non-hazardous or unclassified by the AHJ (Authority Having Jurisdiction). Eco Cool™ and Eco Pump™ Controls are ideal solutions for buildings or rooms where continuous cooling or heating is preferred, but contains equipment which is not critical to facility safety, operations or process control.

As an advanced option, Model SAC and SHP Units may be equipped with Smart Cool™ and Smart Pump™ Controls, which can operate continuously, regardless of whether your building or room is pressurized. Smart Cool™ and Smart Pump™ Controls are ideal solutions for buildings or rooms containing temperature sensitive or critical equipment such as laboratory or process control analyzers, motor controls or distributive process controls.

Protection of critical equipment is assured with Smart Cool™ and Smart Pump™ Controls. Multiple SAC or SHP Units may also be installed to achieve tandem, redundant, lead-lag or N+1 performance, with their alarm contacts wired in series. Operators will then be alerted to act upon the failure of any unit, and ensure continuous, uninterrupted climate control.

Regardless of which control option you select, all Bebco Model SAC and SHP Units can provide superior solutions to applications in highly corrosive on-shore and off-shore locations. Options include 304 or 316 stainless steel corrosion-resistant Condenser Unit Cases, with brushed, sprayed urethane or powder coated finishes for additional protection, along with our highly advanced coil and refrigerant tube coatings.

***When space conservation is a critical concern, Bebco Model SAC & SHP Split System Units address your need easily!***



***The Evaporator Units require very little space just below ceilings, and the Condenser Unit can be mounted anywhere outside, up to fifty feet away!***



***Model SAP and SHP Split System Units are an ideal solution for heating and cooling multiple rooms and spaces in complex, multi-story off-shore structures. Among the many benefits of Bebco Split Systems is their redundant functionality, which ensures many spaces can remain fully occupied, even if one unit requires service or maintenance. As another benefit, energy consumption can be minimized easily when certain spaces are unoccupied by virtue of a Bebco Model SAC or SHP Unit's inherent ability to provide zoned climate control.***



***Along the exterior side of these Off-Shore Living Quarters, designers provided wide walkways, safety railing and room for caged Bebco Split System Condenser Units, stacked three-high to minimize space consumption. Each Bebco Split System Condenser Unit is then separately connected to a corresponding Evaporator Unit, deep within the structure, which provide the critical heating and cooling required to keep billeted crew members comfortable!***



***As the most distinct advantage of Bebco Split System Units, space conservation plays a vital role where every square foot of space is vital for this multi-million dollar off-shore drilling rig!***



## Condenser Case Styles & Materials



### EC Condenser Case Style

This case style is intended for passive environments. The case and base are constructed from 22 gauge epoxy coated carbon steel. The interior chassis parts, including all brackets, plates and covers are constructed from 16-22 gauge galvanized steel.

To enhance corrosion resistance, Units with EC Cases may also include optional coil and refrigerant tube coatings.



### CS & CX Condenser Case Styles

These case styles are intended for mild to highly corrosive environments. The case, base and all interior chassis parts are constructed from 16-18 gauge 304 or 316 grade stainless steel. The mounting feet are formed from 12 gauge 304 or 316 grade stainless steel.

To enhance corrosion resistance, CS and CX Cases can be provided with a spray painted, powder coated or custom finish in any color and paint material, as selected or specified at time of order. This additional protection will complement Heresite® ES-600 coil and refrigerant tube coatings, provided as a standard feature with these case styles.

## Standard Features

### Advanced Low Ambient Control System

When Smart Cool™ and Smart Pump™ Controls are selected, Low and High Refrigerant Pressure Switches are provided to protect the compressor by disengaging the compressor motor upon detection of insufficient or excessive refrigerant pressures. These switches provide low ambient control and diagnostics, to prevent condenser coil freezing and alert you to critical performance issues! All units also feature Hi-Efficiency Rotary Compressors to provide closed-loop cooling with minimum energy use.

### Advanced Electrical Features

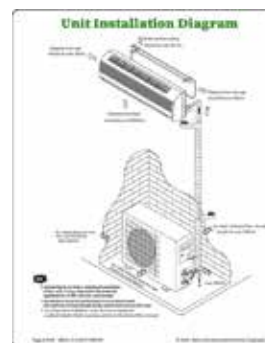
Fan motors for Division 2 Rated Evaporator or Condenser Units feature thermal overloads that are hermetically sealed and remove power upon excessive winding temperature. All Condenser Unit compressors feature thermal overloads that measure head temperature and current flow, to prevent overheating and premature failure.

### Refrigerant Line Sets & Control Cable

All Model SAC and SHP Units are supplied with a 16 feet long line set and Division 2 rated Control Cable to connect the Evaporator and Condenser Refrigeration and Power Circuits. Extended and Custom Length Line Sets and Control Cables are available as an option, at time of order.



**As an exclusive benefit, all Units feature Refrigerant Charging Ports!**



**Please note while we recommend refrigerant line set installation by a certified HVAC Technician, our highly detailed installation guide, pre-charged units and sealed line sets make the process fast and easy!**

## Basic & Eco Pump™ Controls

### An economical solution with a status display and fully functional remote control!

As our trademark names imply, Bebcos Basic and Eco Cool™ Controls are economical environmental control solutions for buildings and rooms located in refineries, chemical manufacturing plants, offshore drilling rigs and other industrial facilities.

Bebco offers “B” Style Basic Controls for corrosive environments in unclassified areas. Bebcos offers “E” Style Eco Cool™ or Eco Pump™ Controls for declassified spaces in classified locations up to Class I, Division 2, Group A-D Hazardous Areas. Please visit our Website for more details!

#### Control Interface:

Evaporator Unit with status display and fully functional hand-held battery powered remote control.

#### Adjustments:

- Power On & Off
- Clock & Display Modes
- Eco & Super Cooling Modes
- Temperature & Timer Settings
- Unit Start Delay & Sleep Timers
- Low, Medium & High Fan Speed
- Multi-Directional Air Swing Control

#### Status Displays:

- Clock
- Fan Speed
- Operating Mode
- Room Temperature
- Cooling Temperature Set Point
- Heating Temperature Set Point
- Unit Start Delay & Sleep Timer Settings

#### Room Temperature Setpoint Adjustment Lockout:

Integrated in all Digital Control Panels. Please contact a Bebcos Sales Associate or visit our website for more Information.

### Basic & Eco Pump™ Controls are fully functional and remotely operated!



*Our Basic & Eco Pump™ Controls are provided with convenient Hand-Held Remote Controls!*

#### LOST or DAMAGED?

*No Worries - a free replacement is provided during our 2 year warranty!*

*Contact a Bebcos Sales Associate now to discuss these options and determine the best solution for your applications!*

## Smart Cool™ & Smart Pump™ Controls

### Integrated or wall mounted solutions with alarm screen and remote alarm contacts!

Bebcos Smart Cool™ and Smart Pump™ Controls provide advanced controls, along with diagnostics, alarm screen and remote device alarm contacts. These controls are therefore ideal for buildings or rooms that are critical to refinery, offshore rig or chemical manufacturing facility operations.

Bebcos offers “S” Style Smart Cool™ and Smart Pump™ Controls for classified spaces in unclassified or classified areas up to Class I, Division 2, Group A-D Hazardous Area. Please visit our Website for more details!

#### Control Interface:

Wall Mounted location, featuring a touchscreen control interface with advanced unit diagnostics - see screens on Page 5.

#### Adjustments:

- Power On & Off
- °C or °F Temperature Scale
- Heating Differential Set Point \*
- Cooling Temperature Set Point
- Manual or Automatic Fan Operation
- Low & High Room Temperature Alarms

#### Status Displays:

- Room Temperature
- Unit Operating Status
- Blower & Compressor Status
- Cooling Temperature Set Point
- Heating Set Point, Defrost Cycle & Reversing Valve Status \*

#### Alarm Displays:

- Flashing Red Screen
- Common Trouble Status
- Time Stamped Alarm Log
- Low & High Room Temperatures
- Low & High Refrigerant Pressures

#### Programmable Alarm Contact:

One (1) Programmable Contact rated for up to 240 VAC @ 10 Amps, that can be set to Open (fail-safe) or Close upon an alarm event, to indicate Unit Fault and Low or High Room Temperatures.

#### Emergency Shutdown Circuit:

One (1) 24 VDC voltage sensing circuit that deactivates your unit remotely with one or more normally closed contacts wired in series.

#### Room Temperature Setpoint Adjustment Lockout:

Integrated in all touchscreen control programs. Please contact a Bebcos Sales Associate or visit our website for more Information.

*\* Provided with Smart Pump™ Controls*

### Smart Cool™ & Smart Pump™ Controls are highly advanced with total unit diagnostics!





## Smart Cool™ Controls

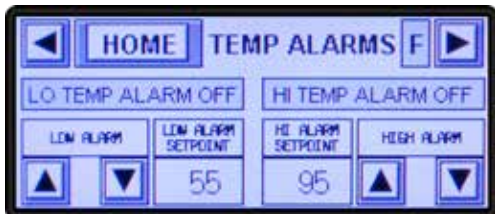
### HOME



### TEMPERATURE SCALE SETTING



### ROOM TEMPERATURE ALARM SETTINGS



### CONTROL INPUTS DISPLAY



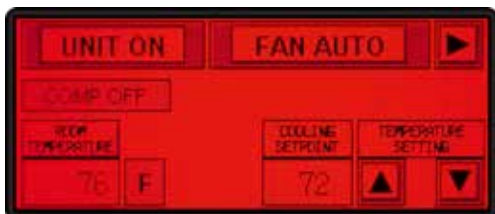
### CONTROL OUTPUTS DISPLAY



### TIME STAMPED ALARM EVENT LOG



### FLASHING RED ALARM EVENTS



*Bebco Smart Cool™ and Smart Pump™ Controls are intuitive and easy to operate.*

*Screen Navigation is accomplished with left and right arrows at the top of each screen.*

*The Home Screens provide Unit On/Off and Fan Mode controls, along with the compressor status, room temperature and cooling set point displays and the room temperature setting adjustment.*

*The Smart Pump™ Home Screen also indicates the status of heating and defrost cycles.*

*Temperature Scale may be selected to display degrees in Fahrenheit or Celsius and Smart Pump™ Controls also include a heating differential set point which establishes the heating temperature.*

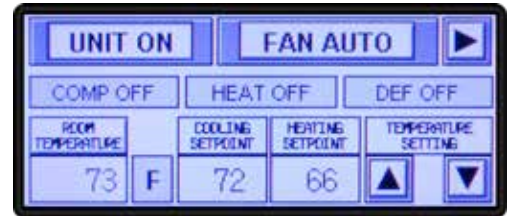
*Input and Output Screens provide vital diagnostic information, and a Time Stamped Alarm Event Log Screen keeps track of any unit faults.*

*The Alarm Event Screen allows selection of either OP/AL (open to alarm) or CL/AL (close to alarm) alarm contact action and displays all Alarm Events.*

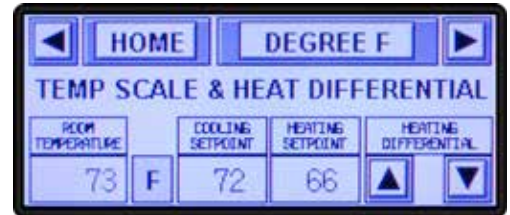
*As an added benefit, alarm events are indicated by a flashing red screen, which can be easily acknowledged by touching the screen in any location.*

## Smart Pump™ Controls

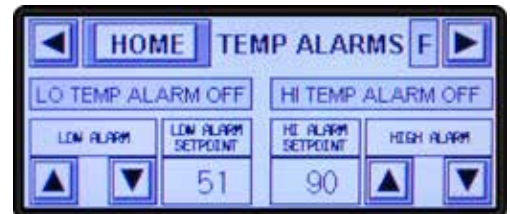
### HOME



### TEMP. SCALE & HEAT DIFF. SETTINGS



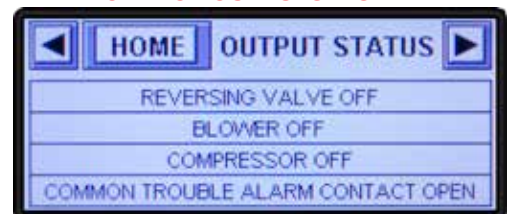
### ROOM TEMPERATURE ALARM SETTINGS



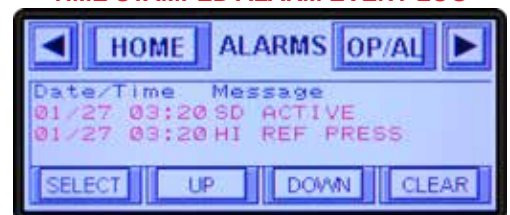
### CONTROL INPUTS DISPLAY



### CONTROL OUTPUTS DISPLAY



### TIME STAMPED ALARM EVENT LOG



### FLASHING RED ALARM EVENTS





## Optional Corrosion Protection

### Condenser Case Finishes

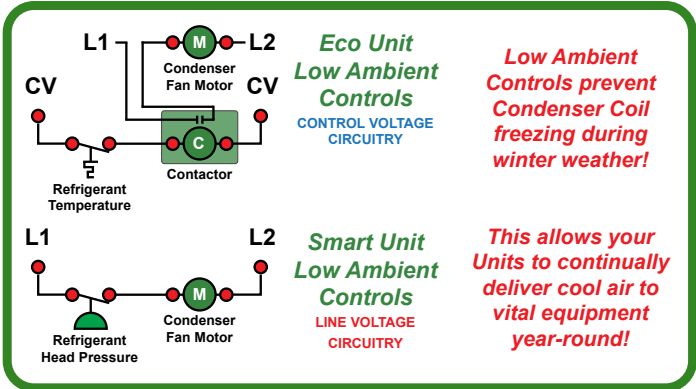
EC, CS and CX Condenser Cases and Chassis may feature a highly resilient sprayed urethane, powder coated or custom finish in your choice of composition and color. Please select the finish of choice when ordering and contact a BebcO Sales Associate for more information on this option!

### Coil & Refrigerant Tube Coatings

Bebco Split System Air Conditioner and Heat Pump Unit Condenser and Evaporator Coils feature aluminum micro-fins with a commercial grade coating, as applied by the coil manufacturer. This level of protection is suitable for passive or mildly corrosive environments, that are not located near coastal areas or any source of corrosive airborne particles.

To enhance Model SAC and SHP Units, BebcO offers Heresite® ES-600 coatings for moderate to highly corrosive environments. This coating is ideal for wastewater treatment plants, facilities with H2S or SO2 environments and near-shore facilities or offshore rigs with salt air environments. To achieve superior results, BebcO carefully isolates, cleans and applies this coating to the entire refrigeration system under quality controlled conditions. This unique application method ensures maximum adhesion and exceptional heat dissipation. Please contact a BebcO Sales Associate for more information regarding how we greatly extend unit service life!

**Heresite® ES-600 Coatings are optional for EC, CS & CX Case Styles to protect against harsh environments and are covered by a 5 Year Warranty!**



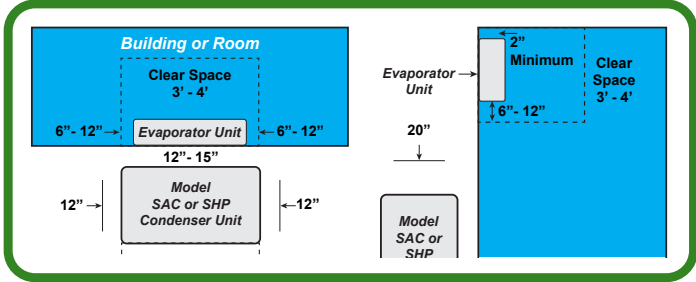
## Low Ambient Controls

All BebcO Model SAC & SHP Units feature low ambient controls to permit operation in cold weather conditions. These units are especially suitable for applications such as analyzer shelters, wireline or mud logging units with high internal heat loads that require continuous year-round cooling!

**All SHP Units feature Defrost Control!**  
Please contact a BebcO Sales Associate to learn more...

## Clearance Requirements

To ensure proper performance of BebcO Model SAC and SHP Units, please note the following clearances are required to ensure proper air flow through the condenser compartment and in the space being conditioned.



### CONDENSER UNIT CLEARANCE REQUIREMENTS

Provide 3 to 4 feet of obstruction-free external space from front of all Units, 12 to 15 inches of space behind each unit, at least 12 inches of obstruction-free external space for air inlet and exhaust grilles on the left, and right sides of all Units and at least 20 inches above all units for service and maintenance access.

### EVAPORATOR UNIT CLEARANCE REQUIREMENTS

Provide 3 to 4 feet of obstruction-free space in front of all Units, 2" above all units and 6 to 12 inches of free space on both sides and below all Units.

## Material Specifications

EC Condenser Case:	22 & 16 Ga. Galvanized & Carbon Steel
CS Condenser Case:	16 & 12 Ga. 304 Stainless Steel
CX Condenser Case:	16 & 12 Ga. 316 Stainless Steel
Evaporator Case:	Molded Thermoplastic
Refrigerant Coils:	Copper Tubing w/ Aluminum Fins
Refrigerant Lines:	Copper Tubing
Refrigerant Pressure Switches:	Brass & Plastic w/ SS Switch
Refrigerant Service Ports:	Brass
Tubing Insulation:	ASTM E-84 Elastomeric
Condenser Fan Motor:	Steel Housing
Condenser Fan Blade:	Plastic
Evaporator Blower Motor:	High Density Plastic
Evaporator Blower Wheel:	Plastic
Compressor Case:	Seal Welded Carbon Steel
Compressor Type:	Rotary
Nameplates:	Reverse Print Lexan® w/ VHB™ Adhesive
Fasteners:	Zinc Plated Steel and/or Stainless Steel
Air Filters:	Washable Polypropylene
EC Condenser Case Finishes:	Baked Enamel or Urethane
CS & CX Condenser Case Finishes:	Natural Brushed or Urethane
Condenser Motor & Compressor Finishes:	Epoxy Paint
Refrigerant Type:	R-410a
Optional Coil & Refrigerant Tubing Coatings:	Heresite®

Pressure Sensors are included with Units featuring Smart Cool™ & Smart Pump™ Controls.  
Lexan® is a registered trademark of the General Electric Corporation.  
VHB™ is a trademark of the 3M Corporation.  
Heresite® is a registered trademark of Heresite Protective Coatings, LLC.





### Condenser Wall Mounting Brackets

Configuration: Universal - Suitable for left or right side use with all Condenser Units  
 Material: 12 Gauge 304 or 316 Grade SS  
 Weight Capacity: 220 Pounds Over Maximum Load  
 Finish Options: 2B, Urethane Spray, Powder Coated or Custom, per Client Specifications



### Hail, Insect & Dust Guards

Filter Media: 12 mil Woven Polypropylene  
 Attachment: Magnetic Strips  
 Frame Material: Painted 316 Grade SS  
 Coverage: All Air Intake & Exhaust Openings  
 Certification: UL Flammability Rated



### Wall Mount Convection Heaters

T3A Rated: 5,500 BTU (1.6 kW)  
 11,000 BTU (3.2 kW)  
 13,600 BTU (4.0 kW)  
 T2A Rated: 6,156 BTU (1.8 kW)  
 12,900 BTU (3.6 kW)  
 24,000 BTU (7.6 kW)  
 30,700 BTU (9.0 kW)  
 Certifications: UL & CSA Listed for US & Canada



### Temperature Alarm Switches

Voltage Ratings: TAS-1: 120-240 VAC / TAS-2: 120-277 VAC  
 Contact Rating: TAS-1: 16 Amps @ 120 V / 8 @ 240-277 V  
 TAS-2: 22 Amps @ 120-277 V  
 Body Material: TAS-1: Grey Polyurethane  
 TAS-2: Cast Aluminum  
 Housing Rating: TAS-1: NEMA 4X / TAS-2: NEMA 7  
 Switch Action: Open / Close on Rise  
 Switch Type: TAS-1: SPDT / TAS-2: DPDT  
 Control Range: TAS-1: 30°-110° F / TAS-2: 50°-90° F  
 Sensor Type: TAS-1: Bulb Hydraulic / TAS-2: Bi-Metal  
 Conduit Ports: TAS-1: Left & Right, 1/2" Female Thread  
 TAS-2: Top & Bottom, 3/4" Female Thread  
 Certifications: UL Listed



### Explosion Proof Disconnect

Contact Rating: 30 Amps Maximum  
 Circuit Wiring: 3 Pole, Non-Fused  
 Body Material: Cast Aluminum  
 Cover Material: Thermoplastic  
 Operator Paddle: Phenolic Toggle  
 Switch Action: Maintained Position  
 Voltage Rating: 600 VAC / 230 VDC, Maximum  
 Circuit Rating: 5000 Amp Short Circuit Rating  
 Conduit Ports: Top & Bottom, 3/4" Female Thread  
 Certifications: UL Listed, CSA Certified, CE Marked



### Remote Alarm Beacons & Horns

**RAB-2 Flashing Remote Alarm Beacon**  
 Materials: Cast Aluminum Body with Glass Dome  
 Mounting: Pendant or Ceiling Mount Styles  
 Operating Temp: -31° F to 104° F  
 Operating Voltage: 120 VAC 50/60 Hz @ 0.60 Amps  
 240 VAC 50/60 Hz @ 0.30 Amps  
 12-24 VDC @ 1.3 - 0.60 Amps  
 Flash Rate: 80 / Minute  
 Certifications: cUL Listed, FM Approved



**RAH-2 Continuous Tone Remote Alarm Horn**  
 Materials: Die-Cast Zinc with Polyurethane Finish  
 Wiring: One 1/2" & Two 3/4" Conduit Entries  
 Operating Temp: -65° F to 150° F  
 Operating Voltage: 120 VAC 50/60 Hz @ 0.18 Amps  
 240 VAC 50/60 Hz @ 0.09 Amps  
 Maximum Sound: 100 Decibels @ 10 feet  
 Certifications: cUL Listed, CSA Certified



## Accessories

### Condenser Wall Mounting Brackets

Bebco Model WMB Brackets permit exterior wall mounting of Model SAC and SHP Condenser Units, with proper rear side clearance. They are formed from 304 or 316 Grade Stainless Steel and rated to support 220 pounds over maximum load.

### Hail, Insect & Dust Guards

Bebco provides these accessories to protect Model SAC and SHP Units in extremely harsh environments where hail, insects or air borne particles are frequently present. They attach magnetically for easy periodic removal and cleaning.

### Wall Mount Convection Heaters

Bebco Model WMCH Heaters complement Model SAC and SHP Units by providing a 5,500 to 30,700 BTU auxiliary heat source. These heaters are offered in a variety of voltage, wattage and T-code ratings, and they can be placed anywhere in your room or building so their heated air can be circulated by Model SAC Evaporator Units in the Fan Only Mode or Model SHP Evaporator Units in the Fan Only or Heating Modes and are UL and CSA Listed for Class I, Division 2, Group B-D Areas.

### Temperature Alarm Switches

Bebco Model TAS Alarm Switches provide one or two sets of contacts to activate a local or remote alarm device upon detection of excessively high or low room or building temperature. They are offered in two housing styles, a NEMA 4X enclosure intended for non-incendive or intrinsically safe remote alarm circuits or a NEMA 7 enclosure rated for Class I, Division 1 Groups C & D. When used in conjunction with Model RAB-2 or RAH-2 Remote Alarm Beacons and Horns, these temperature alarm switches can summon operators to evaluate potentially critical room or building operating conditions.

### Explosion Proof Disconnects

Bebco Model EDS Explosion-Proof Disconnects provide three 30 amp poles to remove all power safely from Model SAC and SHP Units and Model WMCH Room Convection Heaters. These switches are intended for mounting on or near your Unit or Heater to safely disconnect power, and are rated for Class I, Division 1 & 2 Group B-D Hazardous (Classified) Areas. They also include a custom label to properly identify their purpose.

### Remote Alarm Beacons & Horns

Bebco Model RAB-2 or RAH-2 Remote Alarm Beacons and Horns are intended to summon operators to evaluate potentially critical room or building operating conditions. They can be used in conjunction with Model SAC and SHP Units Alarm Contacts or Model TAS Temperature Alarm Switches or with both sets of contacts wired in parallel. Both devices are listed for use in Class I, Division 2, Group B-D Hazardous (Classified) Areas, and are considered as adequate alarm devices by most industry standards.

### Gas Detection Systems

Bebco provides three modular gas detector assemblies to monitor the presence of combustible hydrocarbon gases, hydrogen sulfide (H<sub>2</sub>S) gases or to detect the deficiency of oxygen (O<sub>2</sub>) by diffusion adsorption. Individual components include a monitor with a compatible sensor and a power supply. These assemblies feature calibration adjustments for zero and span (course and fine), and low and high alarm contacts, which can be used to activate alarm systems.



## Dimensions & Weights (inches & lbs.)

Evaporator Unit	BTUH	Height	Width	Depth	Weight
SAC/SHP-090	9,000	7.750"	30.125"	9.375"	15.5
SAC/SHP-120	12,000	7.625"	30.125"	9.375"	15.5
SAC/SHP-180	18,000	8.625"	35.125"	10.875"	20.0
SAC/SHP-240	24,000	8.125"	40.375"	12.250"	27.5
SAC/SHP-360	36,000	9.125"	48.125"	12.750"	40.0

Condenser Unit	BTUH	Height	Width	Depth	Weight
SAC/SHP-090	9,000	19.500"	27.500"	9.000"	48.5
SAC/SHP-120	12,000	21.500"	34.125"	10.000"	68.0
SAC/SHP-180	18,000	21.125"	32.750"	10.000"	74.0
SAC/SHP-240	24,000	23.375"	36.625"	11.125"	86.0
SAC/SHP-360	36,000	28.625"	37.500"	12.125"	112.0

## Power Requirements (FLA)

Model Number	120 VAC 1Ø		208/230 VAC 1Ø	
	Cooling	Heating	Cooling	Heating
SAC/SHP-090	7.3	7.4	-	-
SAC/SHP-120	9.5	9.5	-	-
SAC/SHP-180	-	-	6.7	6.4
SAC/SHP-240	-	-	9.7	9.7
SAC/SHP-360	-	-	14.3	14.1

Please note Heating FLA applies to SHP Models Only

## Operating Temperatures

Unit Configuration	Operating Mode	Minimum Temperature	Maximum Temperature
SAC	Cooling	60°F	120°F
SAC	Fan Only	- 40°F	120°F
SHP	Cooling	60°F	120°F
SHP	Heating	23°F	120°F

## Performance Ratings

### Model SAC Air Conditioner Units

Model Number	Max CFM	SEER Rating	Nominal BTUH Cool	Nominal BTUH Heat	Max Db	Recommended Sq. Ft. of Area
SAC-090	320	14	9K	-	36/48	350 - 450
SAC-120	470	14	12K	-	40/50	450 - 550
SAC-180	585	14	18K	-	56/54	750 - 1000
SAC-240	850	14	24K	-	57/59	1000 - 1500
SAC-360	850	14	36K	-	57/59	1500 - 2000

### Model SHP Heat Pump Units

Model Number	Max CFM	SEER Rating	Nominal BTUH Cool	Nominal BTUH Heat	Max Db	Recommended Sq. Ft. of Area
SHP-090	320	14	9K	9.5K	36/48	350 - 450
SHP-120	470	14	12K	12.5K	40/50	450 - 550
SHP-180	585	14	18K	18.5K	56/54	750 - 1000
SHP-240	850	14	24K	24.5K	57/59	1000 - 1500
SHP-360	850	14	36K	36.5K	57/59	1500 - 2000

#### PERFORMANCE RATING NOTES:

- This data constitutes a maximum or average measurement of performance.
- Dual Max Db ratings reflect sound levels for evaporator units vs. condenser units.
- Recommended Square Foot of Area represents minimum to maximum square footage of space a unit can effectively condition, based on an 8' ceiling height.
- Use larger or multiple units for separate rooms, larger spaces and higher ceilings.
- All information above is subject to change without notice and for reference only.
- Consult a Bebeco Sales Associate for more information at time of inquiry or order.

## Documentation & Hardware

Bebco provides a comprehensive installation, operation and maintenance manual with every unit and electrical wiring diagram, along with an evaporator mounting bracket and a line set of your choice.

**IMPORTANT NOTES: All specifications subject to change without notice. Warranty & Liability policies available upon request.**

## Model SAC/SHP Model Number Matrix

Typical Model Number: **EC-SAC-090-E06-Z-HX-1620**

#### Condenser Unit Case

- EC** - Economy Grade Painted Carbon Steel
- CS** - Commercial Grade 304 Stainless Steel
- CX** - Commercial Grade 316 Stainless Steel

#### Configuration

- SAC** - Split System Air Conditioner (*Smart Controls only*)
- SHP** - Split System Heat Pump (*Basic, Eco or Smart Controls*)

#### Cooling Capacity

- 090** - 9,000 BTU (0.75 Ton)
- 120** - 12,000 BTU (1.00 Ton)
- 180** - 18,000 BTU (1.50 Tons)
- 240** - 24,000 BTU (2.00 Tons)
- 360** - 36,000 BTU (3.00 Tons)

#### Controls

##### Segment A: Controls \*1

- B** - Basic Controls for Unclassified Areas  
(for SHP Units, with Unclassified Interior and Exterior Area Ratings)\*\*\*
- E** - Eco Cool™ or Eco Pump™ Controls for Hazardous Areas  
(for SHP Units, with Unclassified Interior and CI, D2 Exterior Area Rating)
- S** - Smart Cool™ or Smart Pump™ Controls for Hazardous Areas  
(for SAC or SHP Units, with CI, D2 Interior and Exterior Area Ratings)

##### Segment B: Smart Control Enclosure Cable Length

- 06** - 6 Feet (standard)    **20** - 20 Feet    **40** - 40 Feet
- XX** - Excluded (for Eco Pump™ Controls)

#### Operating Voltage

- Z** - 120 VAC Single Phase 60 Hz (090 & 120 Units)
- A** - 208/230 VAC Single Phase 60 Hz (180, 240 & 360 Units)
- U** - Custom Voltage (consult factory for alternate power supply options)

#### Coil Coatings & Case Finishes

##### Segment A: Coil & Refrigerant Tube Coatings \*2

- C** - Heresite® ES-600 Coating (condenser unit only)
- E** - Heresite® ES-600 Coating (evaporator unit only)
- H** - Heresite® ES-600 Coating (both units)
- U** - Custom Coating (consult factory)
- X** - Excluded

##### Segment B: Case Finish \*3

- N** - 2B Cover Finish (for CS & CX Cases)
- S** - White Sprayed Urethane
- P** - White Epoxy Powder Coated
- X** - Excluded (for EC Cases Only)
- G** - ANSI 61 Gray Sprayed Urethane
- T** - ANSI 61 Gray Powder Coated
- U** - Custom Finish

#### Condenser Line Set, Power Cable & Control Cable Lengths \*4

##### Segment A: Line Set Length

- 16** - 16 Feet (standard)    **25** - 25 Feet    **40** - 40 Feet

##### Segment A: Line Set Length

- 20** - 20 Feet (standard)    **30** - 30 Feet    **50** - 50 Feet

#### \* MODEL NUMBER SELECTION NOTES:

- SHP Units with "B" Basic Controls are intended for use in unclassified areas, with all optional case material, coil coating and case finishes. \*\*\* Please note Units with "B" Controls do not feature Hazardous Location modifications, and are therefore classified as Ordinary Location HVAC Devices and provided with Original Factory Certification Markings.  
SHP Units with "E" Eco Pump™ Controls are suitable for Buildings or Rooms with Pressurized or Unclassified Interior Ratings with Class I, Division 2, Group A-D Exterior Ratings.  
SAC & SHP Units with "S" Smart Cool™ or Smart Pump™ Controls are suitable for Buildings or Rooms with Class I, Division 2, Group A-D Interior and Exterior Ratings.  
Please contact a Bebeco Sales Associate for custom control enclosure cable length.
- Please note Coil Coatings are not applied to Line Sets, as specified in the last Segment.  
Please specify custom coating in writing at time of order.
- 2b Finish applies to Condenser Unit case only - chassis parts are not finished. All other finishes apply to Condenser Unit case and chassis parts. Please specify custom Condenser Unit finish in writing at time of order.
- Please carefully evaluate Line Set and Cable Lengths required before placing an order, and contact a Bebeco Sales Associate for custom line set and cable lengths.

## Product Warranty

Bebco Model SAC and SHP Products are warranted against any defects in workmanship and materials for twelve (12) months upon shipment, with an additional six (6) month warranty extension period for OEMs to permit integration, factory acceptance testing and shipment to the End User.



This warranty covers all necessary parts and labor upon determination of product defect. By proper registration using our on-line form or other prescribed methods, End-Users can obtain an additional six (6) month warranty that covers factory unit repair or warranty parts replacement.