



MODEL: SP14**A Heat Pumps

FORM NO. PSC-806



Sure Comfort® SP14**A Heat Pumps

- **Efficiencies: 14 SEER/11.5 EER 8.2 HSPF**
- **Nominal Sizes 1½ to 5 Ton [5.28 to 17.6 kW]**
- **Cooling Capacities 17.3 to 60.5 kBTU [5.7 to 17.7 kW]**



"Proper sizing and installation of equipment is critical to achieve optimal performance. Split system air conditioners and heat pumps must be matched with appropriate coil components to meet Energy Star. Ask your Contractor for details or visit www.energystar.gov."

- New composite base pan – dampens sound, secure wire grille eliminates corrosion and reduces number of fasteners needed
- Improved tubing design – reduces vibration and stress, making unit quieter and reducing opportunity for leaks
- Optimized defrost characteristics - decrease defrosting and provide better home comfort
- Powder coat paint finish – for a long lasting professional finish
- Optimized reversing valve sizing – improves shifting performance for quieter unit operation and increased life of the system
- Enhanced mufflers – help to dissipate vibration energy for quieter unit operation
- Scroll compressor – a sound abating feature added to the compressor significantly reduces noise when system transitions in and out of defrost mode
- Modern cabinet aesthetics – increased curb appeal with visually appealing design
- Wire grille – provides coil protection, enhances cabinet strength, and increases cabinet rigidity
- Optimized fan orifice – optimizes airflow and reduces unit sound
- Rust resistant screws – confirmed through 1500-hour salt spray testing
- Service valve has between 3"-4"-5" valve space – provides a minimum working area of 27-square inches for easier access
- Integrated heat pump lift receptacle – allows standard CPVC stands to be inserted into the base
- 15" wide, industry leading corner service access – makes repairs easier and faster
- External gauge port access – allows easy connection of "low-loss" gauge ports
- Single-row condenser coil – makes unit lighter and allows thorough coil cleaning to maintain "out of the box" performance
- Fewer cabinet fasteners – allow for faster access to internal components and hassle-free panel removal
- Service trays – hold fasteners or caps during service calls
- QR code – provides technical information on demand for faster service calls
- Fan motor harness with extra-long wires – allows unit top to be removed without disconnecting fan wire

Table of Contents

Standard Feature Table	3
Available SKUs	3
Features & Benefits	4-5
Model Number Identification	6-7
Physical Data	8
Electrical Data	8
Accessories	9
Weighted Sound Power	9
Unit Dimensions.....	10
Clearances.....	11
Wiring Diagrams	12
Application Guidelines.....	12
Refrigerant Line Size Information	13-14
Performance Data	15-19
Guide Specifications	20
Limited Warranty	21

Standard Feature Table

Feature	18	24	30	36	42	48	60
R-410a Refrigerant	√	√	√	√	√	√	√
Maximum SEER	14	14	14	14	14	14	14
Maximum EER	11.5	11.5	11.5	11.5	11.5	11.5	11.5
Scroll Compressor	√	√	√	√	√	√	√
Field Installed Filter Drier	√	√	√	√	√	√	√
Front Seating Service Valves	√	√	√	√	√	√	√
High Pressure Switch	√	√	√	√	√	√	√
Low Pressure Switch	√	√	√	√	√	√	√
Internal Pressure Relief Valve	√	√	√	√	√	√	√
Internal Thermal Overload	√	√	√	√	√	√	√
Long Line capability	√	√	√	√	√	√	√
Low Ambient capability with Kit	√	√	√	√	√	√	√
Service Valve Access	√	√	√	√	√	√	√
Composite Basepan	√	√	√	√	√	√	√
1 Screw Control Box Access	√	√	√	√	√	√	√
15" Access to Internal Components	√	√	√	√	√	√	√
Optimized Venturi Airflow	√	√	√	√	√	√	√
Single row condenser coil	√	√	√	√	√	√	√
Powder coated paint	√	√	√	√	√	√	√
Rust resistant screws	√	√	√	√	√	√	√
QR code	√	√	√	√	√	√	√
External gauge ports	√	√	√	√	√	√	√
Service trays	√	√	√	√	√	√	√

√ = Standard

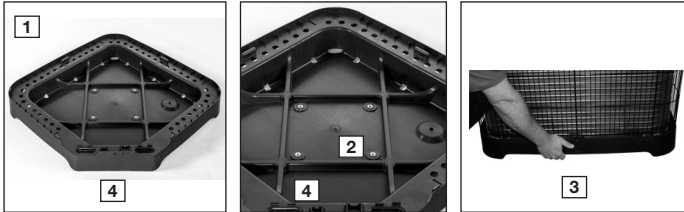
Available SKU

Available Models	Description
SP1418AJ1NA	Sure Comfort® 1 1/2 ton 14 SEER Single-Stage Heat Pump-208/230/1/60
SP1424AJ1NA	Sure Comfort® 2 ton 14 SEER Single-Stage Heat Pump-208/230/1/60
SP1430AJ1NA	Sure Comfort® 2 1/2 ton 14 SEER Single-Stage Heat Pump-208/230/1/60
SP1436AJ1NA	Sure Comfort® 3 ton 14 SEER Single-Stage Heat Pump-208/230/1/60
SP1442AJ1NA	Sure Comfort® 3 1/2 ton 14 SEER Single-Stage Heat Pump-208/230/1/60
SP1448AJ1NA	Sure Comfort® 4 ton 14 SEER Single-Stage Heat Pump-208/230/1/60
SP1460AJ1NA	Sure Comfort® 5 ton 14 SEER Single-Stage Heat Pump-208/230/1/60
SP1436AC1NA	Sure Comfort® 3 ton 14 SEER Single-Stage Heat Pump-208/230/3/60
SP1442AC1NA	Sure Comfort® 3 1/2 ton 14 SEER Single-Stage Heat Pump-208/230/3/60
SP1448AC1NA	Sure Comfort® 4 ton 14 SEER Single-Stage Heat Pump-208/230/3/60
SP1460AC1NA	Sure Comfort® 5 ton 14 SEER Single-Stage Heat Pump-208/230/3/60
SP1436AD1NA	Sure Comfort® 3 ton 14 SEER Single-Stage Heat Pump-460/3/60
SP1442AD1NA	Sure Comfort® 3 1/2 ton 14 SEER Single-Stage Heat Pump-460/3/60
SP1448AD1NA	Sure Comfort® 4 ton 14 SEER Single-Stage Heat Pump-460/3/60
SP1460AD1NA	Sure Comfort® 5 ton 14 SEER Single-Stage Heat Pump-460/3/60

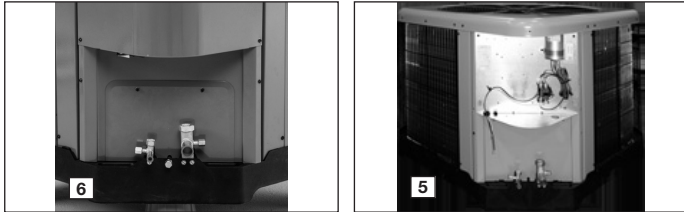
Introduction to SP14**A Heat Pump

The SP14**A is our 14 SEER heat pump and is part of the Sure Comfort heat pump product line that extends from 14 to 16 SEER. This highly featured and reliable heat pump is designed for years of reliable, efficient operation when matched with Sure Comfort indoor aluminum evaporator coils and furnaces or air handler units with aluminum evaporators.

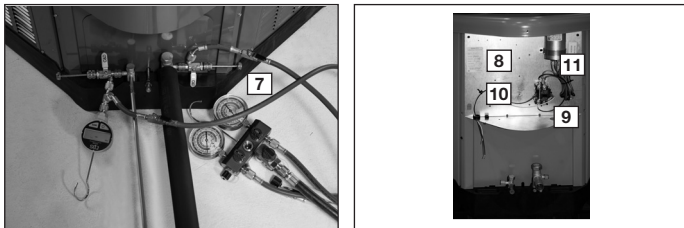
Our unique composite base (1) reduces sound emission, eliminates rattles, reduces fasteners, eliminates corrosion and has integrated brass compressor attachment inserts (2). Furthermore it has incorporated into the design, water management features, means for hand placement (3) for unit maneuvering, screw trays (4) and inserts for lifting off unit pad. (5)



Service Valves (6) are rigidly mounted in the composite base with 3" between suction and discharge valves, 4" clearance below service valves and a minimum of 5" above the service valves, creating industry leading installation ease.

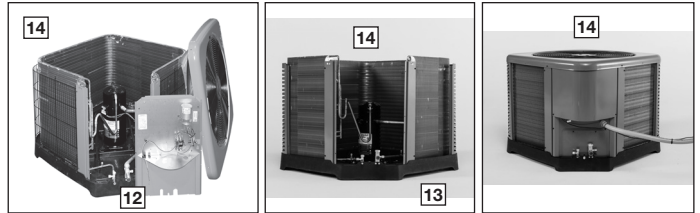


The minimum 27 square-inches around the service valves allows ample room to remove service valve schrader prior to brazing, plenty of clearance for easy brazing of the suction and discharge lines to service valve outlets, easy access and hookup of low loss refrigerant gauges (7), and access to the service valve caps for opening. For applications with long-line lengths up to 250 feet total equivalent length, up to 200 feet condenser above evaporator, or up to 80 feet evaporator above condenser, the long-line instructions in the installation manual should be followed.



Controls are accessed from the corner of the unit by removing only three fasteners from the control access cover, revealing the industry's largest 15" wide and 14" tall control area (8). With all this room in the control area the high voltage electrical whip (9) can easily be inserted through the right size opening in the bottom of the control area. Routing it leads directly to contractor lugs for connection. The low voltage control wires (10) are easily connected to units low voltage wiring. If contactor or capacitor (11) needs to be replaced there is more than adequate space to make the repair.

If in the rare event, greater access is needed to internal components, such as the compressor, the top cover can be removed easily. Furthermore with the top cover removed the control panel can be removed (12). Extra wire length is incorporated into each outdoor fan and compressor so top cover and control panel can be positioned next to the unit. With minimal effort the plug can be removed from the compressor and the outdoor fan wires can be removed from the capacitor to allow even more uncluttered access to the interior of the unit (13). Outdoor coil heights range from as short as 22" to 32", aiding access to the compressor. Disassembly to this degree and complete reassembly only takes a first time service technician less than 10 minutes. (13)



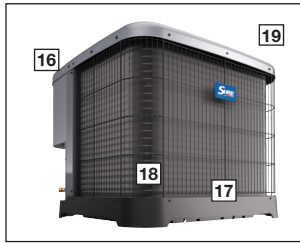
All SP14**A units utilize single row coils (14) making cleaning easy and complete, restoring the performance of the heat pump back to out of the box performance levels year after year.

The outdoor fan motor has sleeve bearings and is inherently protected. The motor is totally enclosed for maximum protection from weather, dust and corrosion. Access to the outdoor fan is made by removing four fasteners from the fan grille. The outdoor fan can be removed from the fan grille by removing 4 fasteners in the rare case outdoor fan motor fails.

Each cabinet has optimized composite (15) fan orifice assuring efficient and quiet airflow.

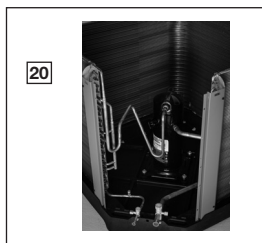


All cabinet painted parts have powder post paint (16) achieving 1000 hour salt spray rating, allowing the cabinet to retain its aesthetics throughout its life.



Scroll compressors with standard internal pressure relief and internal thermal overload are used on all capacities assuring longevity of high efficient and quiet operation for the life of the product.

Each unit is shipped with filter drier for field installation and will trap any moisture or dirt that could contaminate the refrigerant system.



Cabinets are durable and strong due to the composite base pan (17), wire grille (18), and drawn top cover (19).

Each SP14**A capacity has undergone rigorous psychometric testing to assure performance ratings of capacity, SEER and EER per AHRI Standard 210/240 rating conditions. Also each unit bears the UL mark and each unit is certified to UL 1995 safety standards.



Each unit has undergone specific strain and modal testing to assure tubing (20) is outside the units natural frequency and that the suction and discharge lines connected to the compressor withstand any starting, steady state operation or shut down forces imposed by the compressor.

All units have been sound tested in sound chamber to AHRI 270 rating conditions, and A-weighted Sound Power Level tables produced, assuring units have acceptable noise qualities (see page 9). Each unit has been ran in cooling operation at 95°F and 82°F and sound ratings for the SP14**A range from as low as 74 dBA to 77 dBA.

All units have been ship tested to assure units meet stringent “over the road” shipping conditions.

As manufactured all units in the SP14**A family have cooling capability to 55°F. Addition of low ambient control will allow the unit to operate down to 0°F. Factory testing is performed on each unit. All component parts meet well defined specification and continually go through receiving inspections. Each component installed on a unit is scanned, assuring correct component utilization for a given unit capacity and voltage. All condenser coils are leak tested with pressurization test to 550#’s and once installed and assembled, each units’ complete refrigerant system is helium leak tested. All units are fully charged from the factory for up to 15 feet of piping. All units are factory run tested. The SP14**A has a 10-year conditional compressor and parts warranty (registration required).

Optional Accessories

(Refer to accessory chart for model #)

Compressor Crankcase Heater

Protects against refrigerant migration that can occur during low ambient operation

Compressor Sound Cover

- Reinforced vinyl compressor cover containing a 1½ inch thick batt of fiberglass insulation
- Open edges are sealed with a one-inch wide hook and loop fastening tape

Compressor Hard Start Kit

- Single-phase units are equipped with a PSC compressor motor, this type of motor normally does not need a potential relay and start capacitor
- Kit may be required to increase the compressor starting torque, in conditions such as low voltage

Low Ambient Kit

- Heat pump operate satisfactorily in the cooling mode down to 55°F outdoor air temperature without any additional controls
- This Kit can be added in the field enabling unit to operate properly down to 0° in the cooling mode
- Crankcase heater and freezestat should be installed on compressors equipped with a low ambient kit

3"/6"/12"

- Gray high density polyethylene feet are available to raise unit off of mounting surface away from moisture

Low Pressure

- Can be added in field enabling the unit to shut off compressor on loss of charge

NOTE: Unit can be purchased with high and low pressure installed at factory. (Refer to SKU list)

High Pressure

- Can be added in field enabling unit to shut off compressor if unit loses outdoor fan operation.

NOTE: Unit can be purchased with high and low pressure installed at factory. (Refer to SKU list)

Decorative Top

- Can be installed on fan grille

Heat Pumps

<u>S</u>	<u>P</u>	<u>14</u>	<u>24</u>	<u>A</u>	<u>J</u>	<u>1</u>	<u>N</u>	<u>A</u>	<u>*</u>
Brand	Product Category	SEER	Capacity BTU/HR	Major Series*	Voltage	Type	Controls	Minor Series**	Option Code
Sure Comfort	P - Heat Pump	13 - 13 SEER 14 - 14 SEER 16 - 16 SEER 17 - 17 SEER	18 - 18,000 [5.28 kW] 24 - 24,000 [7.03 kW] 30 - 30,000 [8.79 kW] 36 - 36,000 [10.55 kW] 42 - 42,000 [12.31 kW] 48 - 48,000 [14.07 kW] 60 - 60,000 [17.58 kW]	A - 1st Design	J - 1ph, 208-230/60 C - 3ph, 208-230/60 D - 3ph, 460/60	1 - Single-stage 2 - Two-stage	N - Non-communicating	A - 1st Design	N/A

Air Conditioners (For Reference)

<u>S</u>	<u>A</u>	<u>14</u>	<u>24</u>	<u>A</u>	<u>J</u>	<u>1</u>	<u>N</u>	<u>A</u>	<u>*</u>
Brand	Product Category	SEER	Capacity BTU/HR [kW]	Major Series*	Voltage	Type	Controls	Minor Series**	Option Code
Sure Comfort	A - Air Conditioners	13 - 13 SEER 14 - 14 SEER 16 - 16 SEER 17 - 17 SEER	18 - 18,000 [5.28 kW] 24 - 24,000 [7.03 kW] 30 - 30,000 [8.79 kW] 36 - 36,000 [10.55 kW] 42 - 42,000 [12.31 kW] 48 - 48,000 [14.07 kW] 60 - 60,000 [17.58 kW]	A - 1st Design	J - 1ph, 208-230/60 C - 3ph, 208-230/60 D - 3ph, 460/60	1 - Single-stage 2 - Two-stage	N - Non-communicating	A - 1st Design	N/A

Furnace Coils (For Reference)

<u>I</u>	<u>C</u>	<u>E</u>	<u>24</u>	<u>17</u>	<u>S</u>	<u>I</u>	<u>M</u>	<u>C</u>	<u>A</u>	<u>*</u>	
Brand	Product Category	Type	Capacity BTU/HR	Width	Efficiency	Metering Device	Orientation	Casing	Major Series*	Minor Series**	Option Code
Sure Comfort	C - Evap Coil	F - Furn Coil H - Air-Handler Coil	24 - 24,000 [7.03 kW] 36 - 36,000 [10.55 kW] 48 - 48,000 [14.07 kW] 60 - 60,000 [17.58 kW]	14 - 14" 17 - 17.5" 21 - 21" 24 - 24.5"	S- Standard Eff. M- Mid Eff. H- High Eff.	T-TXV	M - Multi-poise	C - Cased U - Uncased	A - 1st Design	A - 1st Design	N/A

Note: The above Model Number IDs are for reference only. Available SKUs are listed on the standard features/available SKU page of model spec sheet.

[] Designates Metric Conversions

90%+ AFUE Gas Furnaces (For Reference)

S	96	V	A	70	2	3	17	M	S	A
Brand	Series	Motor	Major Rev	Input BTU/HR [kW]	Stages	Air Flow	Cabinet Width	Configuration	Nox	Minor Rev
Sure Comfort	90 - 90 AFUE 92 - 92 AFUE 95 - 95 AFUE 96 - 96 AFUE	V - Variable speed T - Constant Torque (X-13) P - PSC	A - 1st Design	040 - 42,000 [12.31 kW] 060 - 56,000 [16.41 kW] 070 - 70,000 [20.51 kW] 085 - 84,000 [24.62 kW] 100 - 98,000 [28.72 kW] 115 - 112,000 [32.82 kW]	1 - Single-stage 2 - Two-stage	3 - up to 3 ton 5 - 3 1/2 up to 5 ton	14 - 14" 17 - 17.5" 21 - 21" 24 - 24.5"	M - Multi-poise	X - Low Nox S - Standard	A - 1st Design

80% AFUE Gas Furnaces (For Reference)

S	80	2	V	A	075	3	17	M	S	A
Brand	Series	Stages	Motor	Major Rev	Input BTU/HR [kW]	Air Flow	Cabinet Width	Configuration	Nox	Minor Rev
Sure Comfort	80 - 80+ AFUE	1 - Single-stage 2 - Two-stage	V - Variable speed T - Constant Torque (X-13) P - PSC premium S - PSC standard	A - 1st Design	050 - 50,000 [15 kW] 075 - 75,000 [22 kW] 100 - 100,000 [29 kW] 125 - 125,000 [37 kW] 150 - 150,000 [44 kW]	3 - up to 3 ton 4 - 2 1/2 to 4 ton 5 - 3 1/2 up to 5 ton	14 - 14" 17 - 17.5" 21 - 21" 24 - 24.5"	M - Multi D - Down Z - Down & zero clearance down flow	X - Low Nox S - Standard	A - 1st Design

Air Handlers (For Reference)

S	H	1	C	36	17	A	N	A	A	000	*
Brand	Product Category	Stages of Airflow	Motor Type	Capacity BTU/HR	Width	Metering Major Series* Device	Controls	Voltage	Minor Series**	Factory Heat Cap Code	Option
Sure Comfort	H - Air Handler	1 - Single-stage 2 - Two-stage	V - Variable Speed C - Constant Torque P - PSC	24 - 24,000 [7.03 kW] 36 - 36,000 [10.55 kW] 48 - 48,000 [14.07 kW] 60 - 60,000 [17.58 kW]	14 - 14" 17 - 17.5" 21 - 21" 24 - 24.5"	T - TEV A - 1st Design	N - Non-communicating	A - 1ph, 115/60 J - 1ph, 208-240/60 D - 3ph, 480/60	A - 1st Design Design	00 - no factory heat with option code	N/A

Note: The above Model Number ID's are for reference only. Available SKU's are listed on the standard features/available SKU page of model spec sheet.

[] Designates Metric Conversions

Physical Data							
Model No. #	SP1418	SP1424	SP1430	SP1436	SP1442	SP1448	SP1460
Nominal Tonnage	1.5	2.0	2.5	3.0	3.5	4.0	5.0
Valve Connections							
Liquid Line O.D. – in.	3/8	3/8	3/8	3/8	3/8	3/8	3/8
Suction Line O.D. – in.	3/4	3/4	3/4	3/4	7/8	7/8	7/8
Refrigerant (R410A) furnished oz.¹	97	89	106	111	155	143	232
Compressor Type	Scroll						
Outdoor Coil							
Net face area – Outer Coil	9.1	9.1	11.1	14.8	14.8	19.8	24.2
Net face area – Inner Coil	—	—	—	—	—	—	—
Tube diameter – in.	3/8	3/8	3/8	3/8	3/8	3/8	3/8
Number of rows	1	1	1	1	1	1	1
Fins per inch	20	20	20	20	20	20	20
Outdoor Fan							
Diameter – in.	20	20	20	24	24	24	26
Number of blades	2	2	3	3	2	3	3
Motor hp	1/8	1/8	1/8	1/6	1/5	1/5	1/5
CFM	2410	2410	2535	3335	2935	4055	4780
RPM	1077	1077	1077	825	825	825	850
watts	154	156	142	173	161	228	279
Shipping weight – lbs.	156	151	162	178	208	234	269
Operating weight – lbs.	133	144	148	171	166	196	222

Electrical Data							
Line Voltage Data (Volts-Phase-Hz)	208/230-1-60	208/230-1-60	208/230-1-60	208/230-1-60	208/230-1-60	208/230-1-60	208/230-1-60
Maximum overcurrent protection (amps)²	20	20	30	35	40	50	50
Minimum circuit ampacity³	12	14	19	22	24	29	31
Compressor							
Rated load amps	9	10.3	14.1	16.7	17.9	21.8	23.7
Locked rotor amps	48	61.6	73	79	112	117	152.5
Condenser Fan Motor							
Full load amps	0.7	0.7	0.7	0.6	1	1.2	1
Locked rotor amps	1.2	1.2	1.2	1.5	1.5	2	2.6
Line Voltage Data (Volts-Phase-Hz)	—	—	—	208/230-3-60	208/230-3-60	208/230-3-60	208/230-3-60
Maximum overcurrent protection (amps) ²	—	—	—	20	30	30	35
Minimum circuit ampacity ³	—	—	—	14	18	19	21
Compressor							
Rated load amps	—	—	—	10.4	13.5	13.7	15.9
Locked rotor amps	—	—	—	73	88	83.1	110
Condenser Fan Motor							
Full load amps	—	—	—	0.6	1	1.2	1
Locked rotor amps	—	—	—	1.5	1.5	2	2.6
Line Voltage Data (Volts-Phase-Hz)	—	—	—	460-3-60	460-3-60	460-3-60	460-3-60
Maximum overcurrent protection (amps) ²	—	—	—	15	15	15	15
Minimum circuit ampacity ³	—	—	—	8	9	9	10
Compressor							
Rated load amps	—	—	—	5.8	6	6.2	7.1
Locked rotor amps	—	—	—	38	44	41	52
Condenser Fan Motor							
Full load amps	—	—	—	.5	.6	.6	.5
Locked rotor amps	—	—	—	1.1	1.3	1.5	1.4

¹Refrigerant charge sufficient for 15 ft. length of refrigerant lines. For longer line set requirements see the installation instructions for information about set length and additional refrigerant charge required.

²HACR type circuit breaker of fuse.

³Refer to National Electrical Code manual to determine wire, fuse and disconnect size requirements.

Accessories

Model No.		SP1418	SP1424	SP1430	SP1436	SP1442	SP1448	SP1460
Compressor crankcase heater		44-17402-44	44-17402-44	44-17402-44	44-17402-44	44-17402-45	44-17402-45	Factory Standard
Low ambient control		RXAD-A08	RXAD-A08	RXAD-A08	RXAD-A08	RXAD-A08	RXAD-A08	RXAD-A08
Compressor sound cover		68-23427-26	68-23427-26	68-23427-26	68-23427-26	68-23427-25	68-23427-25	68-23427-25
Compressor hard start kit		SK-A1	SK-A1	SK-A1	SK-A1	SK-A1	SK-A1	SK-A1
Low pressure control*		Factory Standard	Factory Standard	Factory Standard	Factory Standard	Factory Standard	Factory Standard	Factory Standard
High pressure control*		Factory Standard	Factory Standard	Factory Standard	Factory Standard	Factory Standard	Factory Standard	Factory Standard
Liquid Line Solenoid (24 VAC, 50/60 Hz)	Solenoid Valve	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC	200RD3T3TVLC	200RD3T3TVLC
	Solenoid Coil	61-AMG24V	61-AMG24V	61-AMG24V	61-AMG24V	61-AMG24V	61-AMG24V	61-AMG24V
	Bi-flow kit*	KS30387	KS30387	KS30387	KS30387	KS30387	KS30387	KS30387
Liquid Line Solenoid (120/240 VAC, 50/60 Hz)	Solenoid Valve	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC	200RD3T3TVLC	200RD3T3TVLC
	Solenoid Coil	61-AMG120/240V	61-AMG120/240V	61-AMG120/240V	61-AMG120/240V	61-AMG120/240V	61-AMG120/240V	61-AMG120/240V
	Bi-flow kit*	KS30387	KS30387	KS30387	KS30387	KS30387	KS30387	KS30387
Heat Pump Riser		686020	686020	686020	686020	686020	686020	686020

*Bi-flow kits are required when installing a liquid line solenoid on a heat pump.

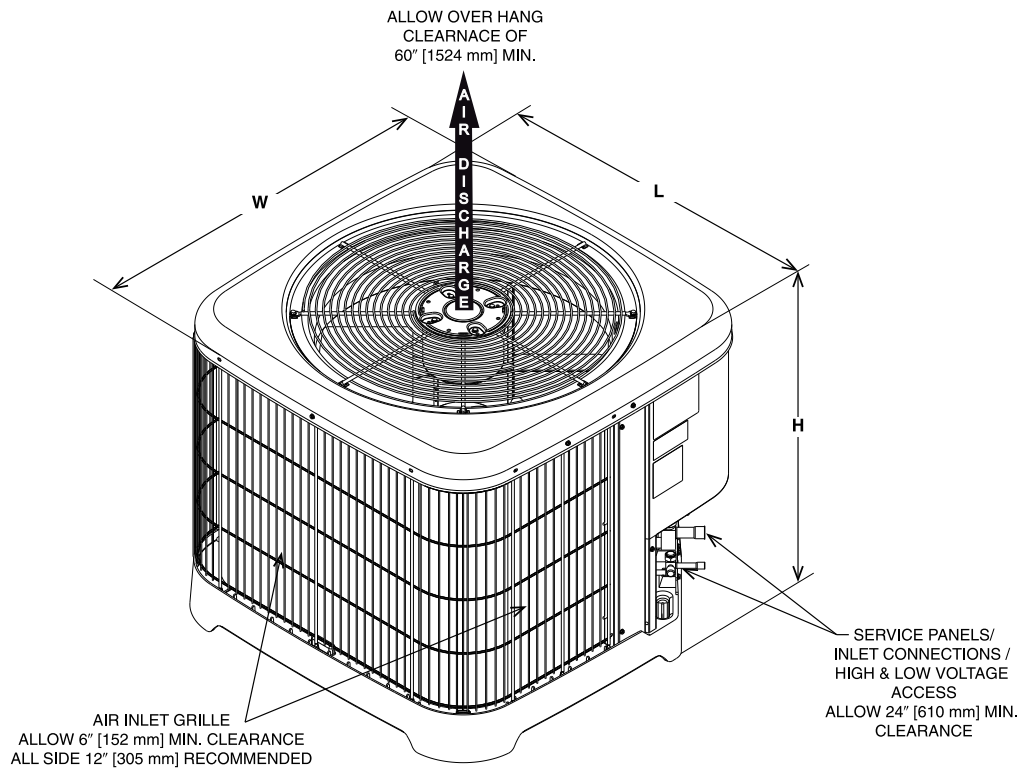
Weighted Sound Power Level (dBA)

SP14 SOUND POWER LEVEL								
Model	Sound Power Level [dB(A)]	Full Octave Linear Sound Power Level dB - Center Frequency - Hz						
		125	250	500	1000	2000	4000	8000
SP1418A	75.2	53.8	60.2	64.3	66	62.5	57.6	53.5
SP1424A	75.4	55.9	59.8	64.8	66.1	62.3	57.7	53
SP1430A	76.5	60.8	60.5	65.4	66.9	63.9	59.9	53.1
SP1436A	74.3	50.5	58	63.5	65.1	61.2	56.1	53.7
SP1442A	75.9	55.1	61	63.9	66.9	69.5	56.7	51.1
SP1448A	74	53.4	54.3	64.2	65.5	60.8	57.2	52.9
SP1460A	75.4	53.6	56.3	66.1	65.9	63.5	58.9	55.7

NOTE: Tested in accordance with AHRI Standard 270-08 (not listed in AHRI)

Unit Dimensions

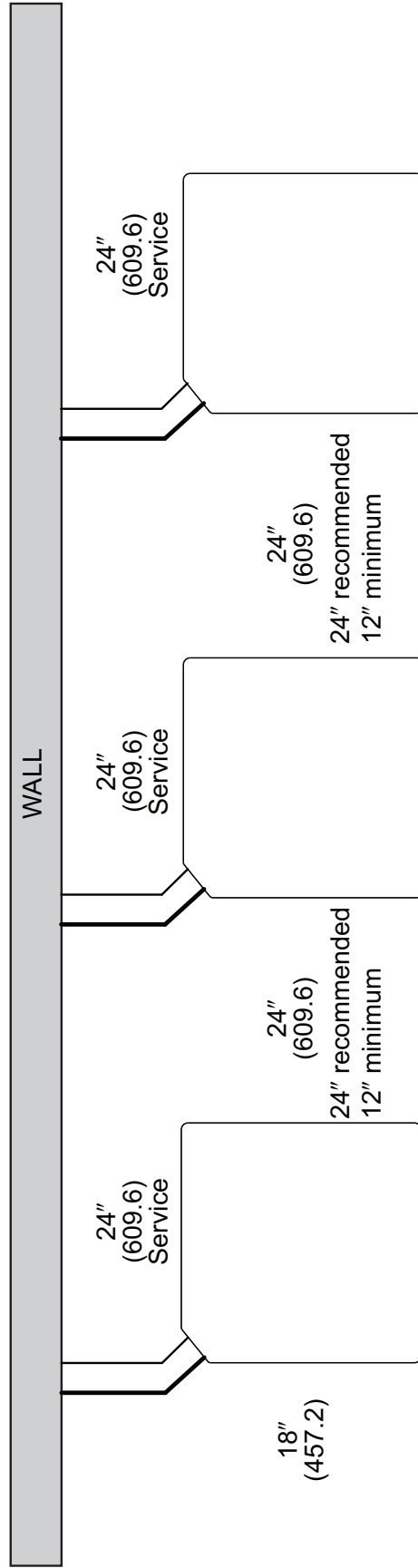
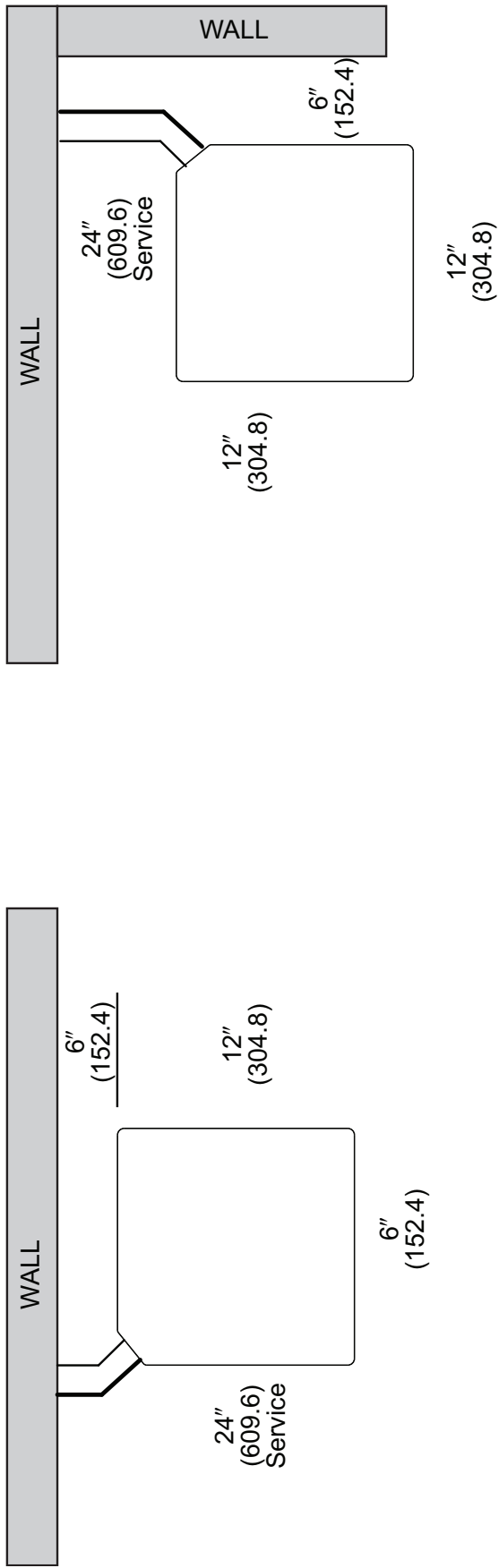
MODEL NUMBER	OPERATING						SHIPPING					
	H (Height)		L (Length)		W (Width)		H (Height)		L (Length)		W (Width)	
	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm
SP1418	25	635	29.75	755	29.75	755	26.75	679	32.38	822	32.38	822
SP1424	25	635	29.75	755	29.75	755	26.75	679	32.38	822	32.38	822
SP1430	25	635	29.75	755	29.75	755	26.75	679	32.38	822	32.38	822
SP1436	27	685	33.75	857	33.75	857	28.75	679	36.38	924	36.38	924
SP1442	27	685	33.75	857	33.75	857	28.75	679	36.38	924	36.38	924
SP1448	35	889	33.75	857	33.75	857	36.75	933	36.38	924	36.38	924
SP1460	39	990	35.75	908	35.75	908	40.75	1035	38.38	975	38.38	975



[] Designates Metric Conversions

ST-A1226-24-00

CLEARANCES

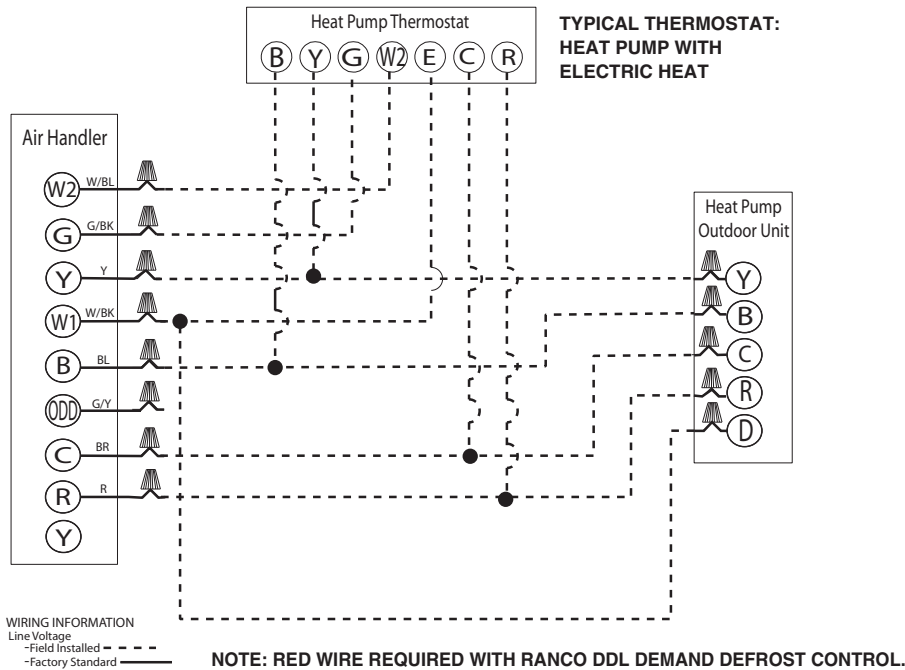


NOTE: NUMBERS IN () = mm

IMPORTANT: When installing multiple units in an alcove, roof well or partially enclosed area, ensure there is adequate ventilation to prevent re-circulation of discharge air.

Control Wiring

FIGURE 4
CONTROL WIRING FOR AIR HANDLER



**TYPICAL THERMOSTAT:
HEAT PUMP WITH
ELECTRIC HEAT**

NOTES:

1. Jumper "E" to "W2" to transfer control of supplemental heat to 1st stage when the emergency heat switch is on.
2. This wire turns on heat for defrost, omit for most economical operation.
3. Wire with colored tracing stripe.

Application Guidelines

1. Intended for outdoor installation with free air inlet and outlet. Outdoor fan external static pressure available is less than 0.01 -in. wc.
2. Minimum outdoor operation air temperature for cooling mode without low-ambient operation accessory is 55°F (12.8°C).
3. Maximum outdoor operating air temperature is 125°F (51.7°C).
4. For reliable operation, unit should be level in all horizontal planes.
5. Use only copper wire for electric connections at unit. Aluminum and clad aluminum are not acceptable for the type of connector provided.
6. Do not apply capillary tube indoor coils to these units.
7. Factory – supplied filter drier must be installed.

Heat Pump Refrigerant Line Size Information (con't.)

R-410A System Capacity Model	Vapor Line Connection Size (Inch I.D.) [mm]	Vapor Line Size (Inch O.D.) [mm]	Vapor Line Selection Chart Capacity Multiplier Table																	
			Total Equivalent Length - Feet [m]																	
			25 [7.62]	50 [15.24]	75 [22.86]	100 [30.48]	125 [45.72]	150 [45.72]	175 [53.34]	200 [60.96]	225 [68.58]	250 [76.20]	275 [83.82]	300 [91.44]						
18	3/4" [19.06]	5/8 [15.88]	1.00	0.99	0.99	0.99	0.99	0.98	0.98	0.98	0.98	0.98	0.98	0.97	0.97	0.97	0.97	0.97	0.97	
		3/4 [19.05]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
		7/8 [22.23]	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
		1 [25.4]	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
		1-1/8 [28.58]	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
24	3/4" [19.06]	5/8 [15.88]	0.99	0.99	0.98	0.98	0.97	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.95	0.95	0.94	
		3/4 [19.05]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.99	0.99	
		7/8 [22.23]	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.01	1.01	1.01	
		1 [25.4]	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
		1-1/8 [28.58]	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
30	3/4" [19.06]	5/8 [15.88]	0.99	0.98	0.98	0.97	0.96	0.96	0.96	0.94	0.93	0.93	0.93	0.93	0.93	0.93	0.91	0.91	0.9	
		3/4 [19.05]	1.00	1.00	1.00	1.00	0.99	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.97	0.96	
		7/8 [22.23]	1.00	1.01	1.01	1.01	1.00	1.00	1.00	1.01	1.01	1.01	1.01	1.00	1.00	1.00	1.00	1.00	1.00	
		1 [25.4]	1.00	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.00
		1-1/8 [28.58]	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
36	3/4" [19.06]	5/8 [15.88]	0.99	0.97	0.95	0.93	0.93	0.92	0.92	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.87	0.86	
		3/4 [19.05]	1.00	0.99	0.98	0.98	0.98	0.97	0.97	0.97	0.97	0.97	0.97	0.96	0.96	0.96	0.95	0.94	0.94	
		7/8 [22.23]	1.00	1.00	1.00	1.00	1.00	1.00	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.98	0.98	
		1 [25.4]	1.01	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
		1-1/8 [28.58]	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
42	7/8" [22.23]	5/8 [15.88]	0.98	0.97	0.95	0.94	0.94	0.92	0.92	0.91	0.89	0.89	0.88	0.88	0.87	0.87	0.86	0.85	N/R	
		3/4 [19.05]	0.99	0.98	0.98	0.98	0.98	0.97	0.97	0.97	0.97	0.96	0.96	0.96	0.95	0.95	0.95	0.94	N/R	
		7/8 [22.23]	1.00	1.00	1.00	1.00	1.00	1.00	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.98	0.98	0.98	N/R	
		1 [25.4]	1.01	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	N/R	
		1-1/8 [28.58]	1.01	1.01	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.01	N/R	
48	7/8" [22.23]	5/8 [15.88]	0.97	0.95	0.94	0.92	0.92	0.89	0.89	0.88	0.88	0.86	0.86	0.84	0.84	0.84	0.84	N/R	N/R	
		3/4 [19.05]	0.99	0.99	0.98	0.98	0.97	0.97	0.96	0.96	0.96	0.95	0.94	0.93	0.93	0.93	0.93	N/R	N/R	
		7/8 [22.23]	1.00	0.99	0.99	0.99	0.99	0.98	0.98	0.98	0.98	0.98	0.97	0.97	0.97	0.97	0.97	0.97	N/R	N/R
		1 [25.4]	1.00	1.00	1.00	1.00	1.00	1.00	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	N/R	N/R
		1-1/8 [28.58]	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
60	7/8" [22.23]	5/8 [15.88]	0.98	0.94	0.92	0.92	0.9	0.88	0.88	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	N/R	
		3/4 [19.05]	1.00	0.99	0.98	0.98	0.96	0.96	0.95	0.94	0.94	0.94	0.94	0.93	0.93	0.93	0.93	0.93	N/R	
		7/8 [22.23]	1.00	1.00	1.00	1.00	1.00	0.99	0.99	0.98	0.98	0.98	0.98	0.97	0.97	0.97	0.97	0.97	0.97	N/R
		1 [25.4]	1.01	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	N/R
		1-1/8 [28.58]	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R

NOTES: N/R = Application not recommended. All calculations assume a 3/8" liquid line [] Designates Metric Conversions

Performance Data @ AHRI Standard Conditions – Heat Pump

High Sales Volume Tested Combination (HSVTC)													
Outdoor Unit	Air Handler	Total Capacity BTU/H [kW]	Net Sensible BTU/H [kW]	Net Latent BTU/H [kW]	SEER	EER	Indoor CFM [L/s]	47 Degree Heating Capacity BTU/H [kW]	47 Degree COP	17 Degree Heating Capacity BTU/H [kW]	17 Degree COP	Region IV HSPF	AHRI#
SP1418AJ1	SH1C2417STAN	18800 [5.5]	13700 [4.0]	5100 [1.5]	14.00	11.50	575 [271.4]	17000 [5.0]	3.60	10200 [3.0]	2.40	8.20	9097364
SP1424AJ1	SH1C2417STAN	23800 [7.0]	17600 [5.2]	6200 [1.8]	14.00	11.50	825 [389.4]	22800 [6.7]	3.60	12600 [3.7]	2.34	8.20	9097377
SP1430AJ1	SH1C3617STAN	28800 [8.4]	22200 [6.5]	6600 [1.9]	14.00	11.50	1050 [495.5]	27400 [8.0]	3.50	16600 [4.9]	2.34	8.20	9097395
SP1436AC1	SH1C3617STAN	35200 [10.3]	26200 [7.7]	9000 [2.6]	14.00	11.50	1200 [566.3]	34800 [10.2]	3.66	23200 [6.8]	2.54	9.00	9097410
SP1436AD1	SH1C3617STAN	35200 [10.3]	26200 [7.7]	9000 [2.6]	14.00	11.50	1200 [566.3]	34800 [10.2]	3.66	23200 [6.8]	2.54	9.00	9097425
SP1436AJ1	SH1C3617STAN	35200 [10.3]	26200 [7.7]	9000 [2.6]	14.00	11.50	1200 [566.3]	34800 [10.2]	3.66	23200 [6.8]	2.54	9.00	9097440
SP1442AC1	SH1C4821STAN	42500 [12.5]	32400 [9.5]	10100 [3.0]	14.00	11.50	1400 [660.7]	39000 [11.4]	3.60	24800 [7.3]	2.50	9.00	9097448
SP1442AD1	SH1C4821STAN	42500 [12.5]	32400 [9.5]	10100 [3.0]	14.00	11.50	1400 [660.7]	39000 [11.4]	3.60	24800 [7.3]	2.50	9.00	9097457
SP1442AJ1	SH1C4821STAN	42500 [12.5]	32400 [9.5]	10100 [3.0]	14.00	11.50	1400 [660.7]	39000 [11.4]	3.60	24800 [7.3]	2.50	9.00	9097466
SP1448AC1	SH1C4821STAN	48000 [14.1]	35700 [10.5]	12300 [3.6]	14.00	11.50	1525 [719.7]	46000 [13.5]	3.60	29800 [8.7]	2.60	9.00	9097477
SP1448AD1	SH1C4821STAN	48000 [14.1]	35700 [10.5]	12300 [3.6]	14.00	11.50	1525 [719.7]	46000 [13.5]	3.60	29800 [8.7]	2.60	9.00	9097489
SP1448AJ1	SH1C4821STAN	48000 [14.1]	35700 [10.5]	12300 [3.6]	14.00	11.50	1525 [719.7]	46000 [13.5]	3.60	29800 [8.7]	2.60	9.00	9097501
SP1460AC1	SH1C6024STAN	56500 [16.6]	40800 [12.0]	15700 [4.6]	14.00	11.50	1800 [849.5]	57000 [16.7]	3.80	35800 [10.5]	2.66	9.00	9097509
SP1460AD1	SH1C6024STAN	56500 [16.6]	40800 [12.0]	15700 [4.6]	14.00	11.50	1800 [849.5]	57000 [16.7]	3.80	35800 [10.5]	2.66	9.00	9097515
SP1460AJ1	SH1C6024STAN	56500 [16.6]	40800 [12.0]	15700 [4.6]	14.00	11.50	1800 [849.5]	57000 [16.7]	3.80	35800 [10.5]	2.66	9.00	9097521

[] Designates Metric Conversions

Performance Data @ AHRI Standard Conditions – Heat Pump (con't.)

S801TA Furnace Ratings														
Outdoor Unit	Furnace	Indoor Coil	Total Capacity BTU/H [kW]	Net Sensible BTU/H [kW]	Net Latent BTU/H [kW]	SEER	EER	Indoor CFM [L/s]	47 Degree Heating Capacity BTU/H [kW]	47 Degree COP	17 Degree Heating Capacity BTU/H [kW]	17 Degree COP	Region IV HSPF	AHRI#
SP1418AJ1	S801TA050314M	TCF2417STA	18000 [5.3]	13100 [3.8]	4900 [1.4]	15.00	12.50	625 [295.0]	17000 [5.0]	3.60	10300 [3.0]	2.40	8.50	9097349
SP1418AJ1	S801TA075317Z	TCF2417STA	18000 [5.3]	13100 [3.8]	4900 [1.4]	15.00	12.50	650 [306.8]	17100 [5.0]	3.54	10400 [3.0]	2.40	8.20	9097350
SP1424AJ1	S801TA050314M	TCF2417STA	23800 [7.0]	17600 [5.2]	6200 [1.8]	14.00	11.50	825 [389.4]	22800 [6.7]	3.60	12700 [3.7]	2.34	8.20	9097367
SP1430AJ1	S801TA075417M	TCF3621STA	28600 [8.4]	21800 [6.4]	6800 [2.0]	14.00	11.50	1025 [483.7]	27400 [8.0]	3.50	16600 [4.9]	2.34	9.00	9097380
SP1430AJ1	S801TA075421M	TCF3621STA	28800 [8.4]	22000 [6.4]	6800 [2.0]	14.00	11.50	1025 [483.7]	27400 [8.0]	3.54	16500 [4.8]	2.34	8.50	9097381
SP1430AJ1	S801TA075521Z	TCF3621STA	28400 [8.3]	21400 [6.3]	7000 [2.1]	14.00	11.50	975 [460.1]	27200 [8.0]	3.50	16300 [4.8]	2.30	8.50	9102392
SP1430AJ1	S801TA100521M	TCF3621STA	28800 [8.4]	22000 [6.4]	6800 [2.0]	14.00	11.50	1025 [483.7]	27400 [8.0]	3.54	16500 [4.8]	2.34	9.00	9097382
SP1430AJ1	S801TA100521Z	TCF3621STA	28600 [8.4]	21600 [6.3]	7000 [2.1]	14.00	11.50	975 [460.1]	27200 [8.0]	3.50	16300 [4.8]	2.30	8.50	9097383
SP1436AC1	S801TA075417M	TCF3621STA	35000 [10.3]	25700 [7.5]	9300 [2.7]	14.00	11.50	1150 [542.7]	34800 [10.2]	3.70	22400 [6.6]	2.54	9.00	9097398
SP1436AC1	S801TA075421M	TCF3621STA	35000 [10.3]	25900 [7.6]	9100 [2.7]	14.00	11.50	1175 [554.5]	35000 [10.3]	3.70	22400 [6.6]	2.54	9.00	9097399
SP1436AC1	S801TA100521Z	TCF3621STA	35000 [10.3]	25900 [7.6]	9100 [2.7]	14.00	11.50	1175 [554.5]	35000 [10.3]	3.70	22400 [6.6]	2.54	9.00	9097400
SP1436AD1	S801TA075417M	TCF3621STA	35000 [10.3]	25700 [7.5]	9300 [2.7]	14.00	11.50	1150 [542.7]	34800 [10.2]	3.70	22400 [6.6]	2.54	9.00	9097413
SP1436AD1	S801TA075421M	TCF3621STA	35000 [10.3]	25900 [7.6]	9100 [2.7]	14.00	11.50	1175 [554.5]	35000 [10.3]	3.70	22400 [6.6]	2.54	9.00	9097414
SP1436AD1	S801TA100521Z	TCF3621STA	35000 [10.3]	25900 [7.6]	9100 [2.7]	14.00	11.50	1175 [554.5]	35000 [10.3]	3.70	22400 [6.6]	2.54	9.00	9097415
SP1436AJ1	S801TA075417M	TCF3621STA	35000 [10.3]	25700 [7.5]	9300 [2.7]	14.00	11.50	1150 [542.7]	34800 [10.2]	3.70	22400 [6.6]	2.54	9.00	9097428
SP1436AJ1	S801TA075421M	TCF3621STA	35000 [10.3]	25900 [7.6]	9100 [2.7]	14.00	11.50	1175 [554.5]	35000 [10.3]	3.70	22400 [6.6]	2.54	9.00	9097429
SP1436AJ1	S801TA100521Z	TCF3621STA	35000 [10.3]	25900 [7.6]	9100 [2.7]	14.00	11.50	1175 [554.5]	35000 [10.3]	3.70	22400 [6.6]	2.54	9.00	9097430
SP1448AC1	S801TA100521M	TCF4821STA	47000 [13.8]	33600 [9.8]	13400 [3.9]	14.00	11.50	1375 [648.9]	45500 [13.3]	3.66	29400 [8.6]	2.60	9.00	9097469
		TCF4824STA	47000 [13.8]	33600 [9.8]	13400 [3.9]	14.00	11.50	1375 [648.9]	45500 [13.3]	3.66	29400 [8.6]	2.60	9.00	9097472
SP1448AD1	S801TA100521M	TCF4821STA	47000 [13.8]	33600 [9.8]	13400 [3.9]	14.00	11.50	1375 [648.9]	45500 [13.3]	3.66	29400 [8.6]	2.60	9.00	9097481
		TCF4824STA	47000 [13.8]	33600 [9.8]	13400 [3.9]	14.00	11.50	1375 [648.9]	45500 [13.3]	3.66	29400 [8.6]	2.60	9.00	9097484
SP1448AJ1	S801TA100521M	TCF4821STA	47000 [13.8]	33600 [9.8]	13400 [3.9]	14.00	11.50	1375 [648.9]	45500 [13.3]	3.66	29400 [8.6]	2.60	9.00	9097493
		TCF4824STA	47000 [13.8]	33600 [9.8]	13400 [3.9]	14.00	11.50	1375 [648.9]	45500 [13.3]	3.66	29400 [8.6]	2.60	9.00	9097496

[] Designates Metric Conversions

Performance Data @ AHRI Standard Conditions – Heat Pump (con't.)

S802VA Furnace Ratings													
Outdoor Unit	Furnace	Indoor Coil	Total Capacity BTU/H [kW]	Net Sensible BTU/H [kW]	Net Latent BTU/H [kW]	EER	SEER	Indoor CFM [L/s]	47 Degree Heating Capacity BTU/H [kW]	17 Degree Heating Capacity BTU/H [kW]	17 Degree COP	Region IV HSPF	AHRI#
SP1418AJ1	S802VA050317M	TCF2417STA	18000 [5.3]	13100 [3.8]	4900 [1.4]	12.00	14.50	650 [306.8]	17100 [5.0]	10400 [3.0]	2.40	8.20	9097352
SP1418AJ1	S802VA075317M	TCF2417STA	18000 [5.3]	13100 [3.8]	4900 [1.4]	12.50	15.00	625 [295.0]	17100 [5.0]	10400 [3.0]	2.40	8.20	9097354
SP1418AJ1	S802VA075317Z	TCF2417STA	18000 [5.3]	13100 [3.8]	4900 [1.4]	12.50	15.00	650 [306.8]	17100 [5.0]	10400 [3.0]	2.40	8.20	9097356
SP1424AJ1	S802VA050317M	TCF2417STA	23800 [7.0]	17600 [5.2]	6200 [1.8]	11.50	14.00	825 [389.4]	22800 [6.7]	12700 [3.7]	2.34	8.20	9097369
SP1424AJ1	S802VA075317M	TCF2417STA	24000 [7.0]	17900 [5.2]	6100 [1.8]	11.50	14.00	875 [413.0]	22800 [6.7]	12700 [3.7]	2.34	8.20	9097371
SP1424AJ1	S802VA075317Z	TCF2417STA	23800 [7.0]	17600 [5.2]	6200 [1.8]	11.50	14.00	825 [389.4]	22800 [6.7]	12700 [3.7]	2.34	8.20	9097373
SP1430AJ1	S802VA075317M	TCF3621STA	28400 [8.3]	21400 [6.3]	7000 [2.1]	11.50	14.00	975 [460.1]	26800 [7.9]	16100 [4.7]	2.26	8.50	9097385
SP1430AJ1	S802VA075421M	TCF3621STA	28800 [8.4]	22200 [6.5]	6600 [1.9]	11.50	14.00	1075 [507.3]	27400 [8.0]	16600 [4.9]	2.34	9.00	9097387
SP1430AJ1	S802VA100521M	TCF3621STA	28800 [8.4]	22000 [6.4]	6800 [2.0]	11.50	14.00	1025 [483.7]	27000 [7.9]	16300 [4.8]	2.34	8.50	9097389
SP1430AJ1	S802VA100521Z	TCF3621STA	28800 [8.4]	22100 [6.5]	6700 [2.0]	11.50	14.00	1050 [495.5]	27400 [8.0]	16500 [4.8]	2.30	8.50	9097391
SP1436AC1	S802VA075421M	TCF3621STA	35400 [10.4]	26600 [7.8]	8800 [2.6]	11.50	14.00	1250 [589.9]	34800 [10.2]	22400 [6.6]	2.54	9.00	9097402
SP1436AC1	S802VA100521M	TCF3621STA	36000 [10.6]	27700 [8.1]	8300 [2.4]	11.50	14.00	1350 [637.1]	34800 [10.2]	22400 [6.6]	2.54	9.00	9097404
SP1436AC1	S802VA100521Z	TCF3621STA	35200 [10.3]	26200 [7.7]	9000 [2.6]	11.50	14.00	1200 [566.3]	34800 [10.2]	22400 [6.6]	2.54	9.00	9097406
SP1436AD1	S802VA075421M	TCF3621STA	35400 [10.4]	26600 [7.8]	8800 [2.6]	11.50	14.00	1250 [589.9]	34800 [10.2]	22400 [6.6]	2.54	9.00	9097417
SP1436AD1	S802VA100521M	TCF3621STA	36000 [10.6]	27700 [8.1]	8300 [2.4]	11.50	14.00	1350 [637.1]	34800 [10.2]	22400 [6.6]	2.54	9.00	9097419
SP1436AD1	S802VA100521Z	TCF3621STA	35200 [10.3]	26200 [7.7]	9000 [2.6]	11.50	14.00	1200 [566.3]	34800 [10.2]	22400 [6.6]	2.54	9.00	9097421
SP1436AJ1	S802VA075421M	TCF3621STA	35400 [10.4]	26600 [7.8]	8800 [2.6]	11.50	14.00	1250 [589.9]	34800 [10.2]	22400 [6.6]	2.54	9.00	9097432
SP1436AJ1	S802VA100521M	TCF3621STA	36000 [10.6]	27700 [8.1]	8300 [2.4]	11.50	14.00	1350 [637.1]	34800 [10.2]	22400 [6.6]	2.54	9.00	9097434
SP1436AJ1	S802VA100521Z	TCF3621STA	35200 [10.3]	26200 [7.7]	9000 [2.6]	11.50	14.00	1200 [566.3]	34800 [10.2]	22400 [6.6]	2.54	9.00	9097436
SP1442AC1	S802VA100521M	TCF4821STA	42000 [12.3]	31800 [9.3]	10200 [3.0]	11.50	14.00	1400 [660.7]	39000 [11.4]	24800 [7.3]	2.50	9.00	9097443
SP1442AC1	S802VA125524M	TCF4824STA	42000 [12.3]	31800 [9.3]	10200 [3.0]	11.50	14.00	1425 [672.5]	39000 [11.4]	24800 [7.3]	2.50	9.00	9097445
SP1442AD1	S802VA100521M	TCF4821STA	42000 [12.3]	31800 [9.3]	10200 [3.0]	11.50	14.00	1400 [660.7]	39000 [11.4]	24800 [7.3]	2.50	9.00	9097447
SP1442AD1	S802VA125524M	TCF4824STA	42000 [12.3]	31800 [9.3]	10200 [3.0]	11.50	14.00	1425 [672.5]	39000 [11.4]	24800 [7.3]	2.50	9.00	9097452
SP1442AJ1	S802VA100521M	TCF4821STA	42000 [12.3]	31800 [9.3]	10200 [3.0]	11.50	14.00	1400 [660.7]	39000 [11.4]	24800 [7.3]	2.50	9.00	9097454
SP1442AJ1	S802VA125524M	TCF4824STA	42000 [12.3]	31800 [9.3]	10200 [3.0]	11.50	14.00	1425 [672.5]	39000 [11.4]	24800 [7.3]	2.50	9.00	9097456
SP1442AJ1	S802VA100521M	TCF4821STA	42000 [12.3]	31800 [9.3]	10200 [3.0]	11.50	14.00	1400 [660.7]	39000 [11.4]	24800 [7.3]	2.50	9.00	9097461
SP1442AJ1	S802VA125524M	TCF4824STA	42000 [12.3]	31800 [9.3]	10200 [3.0]	11.50	14.00	1425 [672.5]	39000 [11.4]	24800 [7.3]	2.50	9.00	9097463
SP1442AJ1	S802VA125524M	TCF4824STA	42000 [12.3]	31900 [9.3]	10100 [3.0]	11.50	14.00	1425 [672.5]	39000 [11.4]	25000 [7.3]	2.50	9.00	9097465
SP1448AC1	S802VA100521M	TCF4821STA	48000 [14.1]	35500 [10.4]	12500 [3.7]	11.50	14.00	1525 [719.7]	45500 [13.3]	29800 [8.7]	2.60	9.00	9097471
SP1448AC1	S802VA125524M	TCF4824STA	48000 [14.1]	35500 [10.4]	12500 [3.7]	11.50	14.00	1525 [719.7]	45500 [13.3]	29800 [8.7]	2.60	9.00	9097474
SP1448AC1	S802VA100521M	TCF4824STA	48000 [14.1]	35900 [10.5]	12100 [3.5]	11.50	14.00	1575 [743.3]	46000 [13.5]	30000 [8.8]	2.60	9.00	9097476
SP1448AD1	S802VA100521M	TCF4821STA	48000 [14.1]	35500 [10.4]	12500 [3.7]	11.50	14.00	1525 [719.7]	45500 [13.3]	29800 [8.7]	2.60	9.00	9097483
SP1448AD1	S802VA125524M	TCF4824STA	48000 [14.1]	35500 [10.4]	12500 [3.7]	11.50	14.00	1525 [719.7]	45500 [13.3]	29800 [8.7]	2.60	9.00	9097486
SP1448AD1	S802VA125524M	TCF4824STA	48000 [14.1]	35900 [10.5]	12100 [3.5]	11.50	14.00	1575 [743.3]	46000 [13.5]	30000 [8.8]	2.60	9.00	9097488
SP1448AJ1	S802VA100521M	TCF4821STA	48000 [14.1]	35500 [10.4]	12500 [3.7]	11.50	14.00	1525 [719.7]	45500 [13.3]	29800 [8.7]	2.60	9.00	9097495
SP1448AJ1	S802VA100521M	TCF4824STA	48000 [14.1]	35500 [10.4]	12500 [3.7]	11.50	14.00	1525 [719.7]	45500 [13.3]	29800 [8.7]	2.60	9.00	9097498

[] Designates Metric Conversions

Performance Data @ AHRI Standard Conditions – Heat Pump (con't.)

S802VA Furnace Ratings														
Outdoor Unit	Furnace	Indoor Coil	Total Capacity BTU/H [kW]	Net Sensible BTU/H [kW]	Net Latent BTU/H [kW]	SEER	EER	Indoor CFM [L/s]	47 Degree Heating Capacity BTU/H [kW]	47 Degree COP	17 Degree Heating Capacity BTU/H [kW]	17 Degree COP	Region IV HSPF	AHRI#
SP1448AJ1	S802VA125524M	TCF4824STA	48000 [14.1]	35900 [10.5]	12100 [3.5]	14.00	11.50	1575 [743.3]	46000 [13.5]	3.66	30000 [8.8]	2.60	9.00	9097500
SP1460AC1	S802VA125524M	TCF6024HTA	56000 [16.4]	39200 [11.5]	16800 [4.9]	14.00	11.50	1675 [790.5]	56000 [16.4]	3.80	35000 [10.3]	2.60	9.00	9097506
SP1460AD1	S802VA125524M	TCF6024STA	56000 [16.4]	39200 [11.5]	16800 [4.9]	14.00	11.50	1675 [790.5]	56000 [16.4]	3.80	35000 [10.3]	2.60	9.00	9097508
		TCF6024HTA	56000 [16.4]	39200 [11.5]	16800 [4.9]	14.00	11.50	1675 [790.5]	56000 [16.4]	3.80	35000 [10.3]	2.60	9.00	9097512
		TCF6024STA	56000 [16.4]	39200 [11.5]	16800 [4.9]	14.00	11.50	1675 [790.5]	56000 [16.4]	3.80	35000 [10.3]	2.60	9.00	9097514
		TCF6024HTA	56000 [16.4]	39200 [11.5]	16800 [4.9]	14.00	11.50	1675 [790.5]	56000 [16.4]	3.80	35000 [10.3]	2.60	9.00	9097518
		TCF6024STA	56000 [16.4]	39200 [11.5]	16800 [4.9]	14.00	11.50	1675 [790.5]	56000 [16.4]	3.80	35000 [10.3]	2.60	9.00	9097520

S95TA Furnace Ratings														
Outdoor Unit	Furnace	Indoor Coil	Total Capacity BTU/H [kW]	Net Sensible BTU/H [kW]	Net Latent BTU/H [kW]	SEER	EER	Indoor CFM [L/s]	47 Degree Heating Capacity BTU/H [kW]	47 Degree COP	17 Degree Heating Capacity BTU/H [kW]	17 Degree COP	Region IV HSPF	AHRI#
SP1418AJ1	S95TA0401317M	TCF2417STA	18000 [5.3]	13100 [3.8]	4900 [1.4]	14.50	12.00	650 [306.8]	17100 [5.0]	3.54	10400 [3.0]	2.40	8.20	9102390
SP1418AJ1	S95TC0401317M	TCF2417STA	18000 [5.3]	13100 [3.8]	4900 [1.4]	14.50	12.00	650 [306.8]	17100 [5.0]	3.54	10400 [3.0]	2.40	8.20	9102391

S96VA Furnace Ratings														
Outdoor Unit	Furnace	Indoor Coil	Total Capacity BTU/H [kW]	Net Sensible BTU/H [kW]	Net Latent BTU/H [kW]	SEER	EER	Indoor CFM [L/s]	47 Degree Heating Capacity BTU/H [kW]	47 Degree COP	17 Degree Heating Capacity BTU/H [kW]	17 Degree COP	Region IV HSPF	AHRI#
SP1418AJ1	S96VA0402317M	TCF2417STA	18000 [5.3]	13100 [3.8]	4900 [1.4]	14.50	12.00	600 [283.2]	17100 [5.0]	3.60	10400 [3.0]	2.40	8.50	9097358
SP1418AJ1	S96VA0602317M	TCF2417STA	18000 [5.3]	13100 [3.8]	4900 [1.4]	14.50	12.00	650 [306.8]	17200 [5.0]	3.54	10500 [3.1]	2.34	8.20	9097360
SP1418AJ1	S96VA0702317M	TCF2417STA	18000 [5.3]	13100 [3.8]	4900 [1.4]	14.50	12.00	600 [283.2]	17100 [5.0]	3.60	10400 [3.0]	2.40	8.50	9097362
SP1424AJ1	S96VA0402317M	TCF2417STA	23800 [7.0]	17600 [5.2]	6200 [1.8]	14.00	11.50	825 [389.4]	22800 [6.7]	3.60	12700 [3.7]	2.34	8.20	9097375
SP1430AJ1	S96VA1002521M	TCF3621STA	28200 [8.3]	21100 [6.2]	7100 [2.1]	14.00	11.50	950 [448.4]	26600 [7.8]	3.40	16000 [4.7]	2.26	8.50	9097393
SP1436AC1	S96VA1002521M	TCF3621STA	34600 [10.1]	25100 [7.4]	9500 [2.8]	14.00	11.50	1100 [519.1]	34000 [10.0]	3.60	21800 [6.4]	2.50	9.00	9097408
SP1436AD1	S96VA1002521M	TCF3621STA	34600 [10.1]	25100 [7.4]	9500 [2.8]	14.00	11.50	1100 [519.1]	34000 [10.0]	3.60	21800 [6.4]	2.50	9.00	9097423
SP1436AJ1	S96VA1002521M	TCF3621STA	34600 [10.1]	25100 [7.4]	9500 [2.8]	14.00	11.50	1100 [519.1]	34000 [10.0]	3.60	21800 [6.4]	2.50	9.00	9097438

[] Designates Metric Conversions

Performance Data @ AHRI Standard Conditions – Heat Pump (con't.)

Air Handler Ratings													
Outdoor Unit	Air Handler	Total Capacity BTU/H [kW]	Net Sensible BTU/H [kW]	Net Latent BTU/H [kW]	SEER	EER	Indoor CFM [L/s]	47 Degree Heating Capacity BTU/H [kW]	47 Degree COP	17 Degree Heating Capacity BTU/H [kW]	17 Degree COP	Region IV HSPF	AHRI#
SP1418AJ1	RF1T2421MTAN	1800 [5.3]	13100 [3.8]	4900 [1.4]	15.00	12.50	600 [283.2]	17400 [5.1]	3.50	10200 [3.0]	2.30	8.20	9097363
	SBHP-17	18800 [5.5]	13900 [4.1]	4900 [1.4]	14.00	11.50	600 [283.2]	16900 [5.0]	3.46	9400 [2.8]	2.20	8.20	9097348
	SH1V2417STAN	19100 [5.6]	14100 [4.1]	5000 [1.5]	14.00	11.50	650 [306.8]	17000 [5.0]	3.60	10300 [3.0]	2.40	8.20	9097365
SP1424AJ1	RF1T2421MTAN	24000 [7.0]	18200 [5.3]	5800 [1.7]	14.00	11.50	800 [377.6]	21800 [6.4]	3.54	13000 [3.8]	2.34	8.50	9097376
	SBHP-17	24200 [7.1]	17600 [5.2]	6600 [1.9]	14.00	11.50	825 [389.4]	21400 [6.3]	3.54	13000 [3.8]	2.34	8.20	9097366
	SH1V2417STAN	23800 [7.0]	17600 [5.2]	6200 [1.8]	14.00	11.50	850 [401.2]	22800 [6.7]	3.60	12600 [3.7]	2.34	8.20	9097378
SP1430AJ1	RF1T3624MTAN	29000 [8.5]	23200 [6.8]	5800 [1.7]	14.50	12.00	1000 [471.9]	27800 [8.1]	3.60	16600 [4.9]	2.34	8.50	9097394
	SBHP-21	28800 [8.4]	21600 [6.3]	7200 [2.1]	14.00	11.50	975 [460.1]	26400 [7.7]	3.66	16100 [4.7]	2.40	8.20	9097379
	SH1V3617STAN	28600 [8.4]	21800 [6.4]	6800 [2.0]	14.00	11.50	1025 [483.7]	27200 [8.0]	3.46	16400 [4.8]	2.30	8.20	9097396
SP1436AC1	RF1T3624MTAN	34400 [10.1]	27300 [8.0]	7100 [2.1]	14.00	11.50	1200 [566.3]	36400 [10.7]	3.66	22400 [6.6]	2.40	9.00	9097409
	SBHP-21	34800 [10.2]	25700 [7.5]	9100 [2.7]	14.00	11.50	1200 [566.3]	34800 [10.2]	3.66	22000 [6.4]	2.54	9.00	9097397
	SH1V3617STAN	35200 [10.3]	26200 [7.7]	9000 [2.6]	14.00	11.50	1200 [566.3]	34800 [10.2]	3.70	22400 [6.6]	2.54	9.00	9097411
SP1436AD1	RF1T3624MTAN	34400 [10.1]	27300 [8.0]	7100 [2.1]	14.00	11.50	1200 [566.3]	36400 [10.7]	3.66	22400 [6.6]	2.40	9.00	9097424
	SBHP-21	34800 [10.2]	25700 [7.5]	9100 [2.7]	14.00	11.50	1200 [566.3]	34800 [10.2]	3.66	22000 [6.4]	2.54	9.00	9097412
	SH1V3617STAN	35200 [10.3]	26200 [7.7]	9000 [2.6]	14.00	11.50	1200 [566.3]	34800 [10.2]	3.70	22400 [6.6]	2.54	9.00	9097426
SP1436AJ1	RF1T3624MTAN	34400 [10.1]	27300 [8.0]	7100 [2.1]	14.00	11.50	1200 [566.3]	36400 [10.7]	3.66	22400 [6.6]	2.40	9.00	9097439
	SBHP-21	34800 [10.2]	25700 [7.5]	9100 [2.7]	14.00	11.50	1200 [566.3]	34800 [10.2]	3.66	22000 [6.4]	2.54	9.00	9097427
	SH1V3617STAN	35200 [10.3]	26200 [7.7]	9000 [2.6]	14.00	11.50	1200 [566.3]	34800 [10.2]	3.70	22400 [6.6]	2.54	9.00	9097441
SP1442AC1	SH1C4824STAN	42500 [12.5]	33200 [9.7]	9300 [2.7]	14.00	11.50	1550 [731.5]	39500 [11.6]	3.54	25000 [7.3]	2.46	9.00	9097449
	SH1V4821STAN	42000 [12.3]	31900 [9.3]	10100 [3.0]	14.00	11.50	1225 [578.1]	39000 [11.4]	3.66	24800 [7.3]	2.50	9.00	9097450
	SH1C4824STAN	42500 [12.5]	33200 [9.7]	9300 [2.7]	14.00	11.50	1550 [731.5]	39500 [11.6]	3.54	25000 [7.3]	2.46	9.00	9097468
SP1442AD1	SH1V4821STAN	42000 [12.3]	31900 [9.3]	10100 [3.0]	14.00	11.50	1225 [578.1]	39000 [11.4]	3.66	24800 [7.3]	2.50	9.00	9097459
	SH1C4824STAN	42500 [12.5]	33200 [9.7]	9300 [2.7]	14.00	11.50	1550 [731.5]	39500 [11.6]	3.54	25000 [7.3]	2.46	9.00	9097467
	SH1V4821STAN	42000 [12.3]	31900 [9.3]	10100 [3.0]	14.00	11.50	1225 [578.1]	39000 [11.4]	3.66	24800 [7.3]	2.50	9.00	9097468
SP1448AJ1	SH1C4824STAN	48000 [14.1]	35700 [10.5]	12300 [3.6]	14.00	11.50	1550 [731.5]	45500 [13.3]	3.66	29800 [8.7]	2.66	9.00	9097478
	SH1V4821STAN	47000 [13.8]	33700 [9.9]	13300 [3.9]	14.00	11.50	1400 [660.7]	45000 [13.2]	3.60	29200 [8.6]	2.54	9.00	9097479
	SH1V4824STAN	48500 [14.2]	36700 [10.8]	11800 [3.5]	14.00	11.50	1625 [766.9]	45500 [13.3]	3.66	29800 [8.7]	2.66	9.00	9097480
SP1448AD1	SH1C4824STAN	48000 [14.1]	35700 [10.5]	12300 [3.6]	14.00	11.50	1550 [731.5]	45500 [13.3]	3.66	29800 [8.7]	2.66	9.00	9097490
	SH1V4821STAN	47000 [13.8]	33700 [9.9]	13300 [3.9]	14.00	11.50	1400 [660.7]	45000 [13.2]	3.60	29200 [8.6]	2.54	9.00	9097491
	SH1V4824STAN	48500 [14.2]	36700 [10.8]	11800 [3.5]	14.00	11.50	1625 [766.9]	45500 [13.3]	3.66	29800 [8.7]	2.66	9.00	9097492
SP1448AJ1	SH1C4824STAN	48000 [14.1]	35700 [10.5]	12300 [3.6]	14.00	11.50	1550 [731.5]	45500 [13.3]	3.66	29800 [8.7]	2.66	9.00	9097502
	SH1V4821STAN	47000 [13.8]	33700 [9.9]	13300 [3.9]	14.00	11.50	1400 [660.7]	45000 [13.2]	3.60	29200 [8.6]	2.54	9.00	9097503
	SH1V4824STAN	48500 [14.2]	36700 [10.8]	11800 [3.5]	14.00	11.50	1625 [766.9]	45500 [13.3]	3.66	29800 [8.7]	2.66	9.00	9097504
SP1460AC1	SH1V6024STAN	56500 [16.6]	40700 [11.9]	15800 [4.6]	14.00	11.50	1800 [849.5]	57000 [16.7]	3.84	35800 [10.5]	2.70	9.00	9097510
	SH1V6024STAN	56500 [16.6]	40700 [11.9]	15800 [4.6]	14.00	11.50	1800 [849.5]	57000 [16.7]	3.84	35800 [10.5]	2.70	9.00	9097516
	SH1V6024STAN	56500 [16.6]	40700 [11.9]	15800 [4.6]	14.00	11.50	1800 [849.5]	57000 [16.7]	3.84	35800 [10.5]	2.70	9.00	9097522

[] Designates Metric Conversions

GUIDE SPECIFICATIONS

General

System Description

Outdoor-mounted, air-cooled, split-system heat pump unit suitable for ground or rooftop installation. Unit consists of a hermetic compressor, composite basepan, an air-cooled coil, propeller-type condenser fan, suction and liquid line service valve, and a control box. Unit will discharge supply air upward as shown on contract drawings. Unit will be used in a refrigeration circuit to match up to a coil unit.

Quality Assurance

- Unit will be rated in accordance with the latest edition of AHRI Standard 210.
- Unit will be certified for capacity and efficiency, and listed in the latest AHRI directory.
- Unit construction will comply with latest edition of ANSI/ASHRAE and with NEC.
- Unit will be constructed in accordance with UL standards and will carry the UL label of approval. Unit will have c-UL-us approval.
- Unit cabinet will be capable of withstanding ASTM B117 1000-hr salt spray test.
- Air-cooled condenser coils will be leak tested at 150 psig and pressure tested at 550 psig.
- Unit constructed in ISO9001 approved facility.

Delivery, Storage, and Handling

- Unit will be shipped as single package only and is stored and handled per unit manufacturer's recommendations.

Warranty (for inclusion by specifying engineer) – U.S. and Canada only.

Products

Equipment

Factory assembled, single piece, air-cooled heat pump unit. Contained within the unit enclosure is all factory wiring, piping, controls, compressor, refrigerant charge R-410A, and special features required prior to field start-up.

Unit Cabinet

- Unit cabinet will be constructed of galvanized steel, bonderized, and coated with a powder coat paint.
- All units constructed with louver coil protection and corner post. Louver can be removed by removing one fastener per louver panel.

AIR-COOLED, SPLIT-SYSTEM HEAT PUMP SP14**A

1-1/2 TO 5 NOMINAL TONS

Fans

- Condenser fan will be direct-drive propeller type, discharging air upward.
- Condenser fan motors will be totally enclosed, 1-phase type with class B insulation and permanently lubricated bearings. Shafts will be corrosion resistant.
- Fan blades will be statically and dynamically balanced.
- Condenser fan openings will be equipped with coated steel wire safety guards.

Compressor

- Compressor will be hermetically sealed.
- Compressor will be mounted on rubber vibration isolators.

Condenser Coil

- Condenser coil will be air cooled.
- Coil will be constructed of aluminum fins mechanically bonded to copper tubes.

Refrigeration Components

- Refrigeration circuit components will include liquid-line shutoff valve with sweat connections, vapor-line shutoff valve with sweat connections, system charge of R-410A refrigerant, and compressor oil.
- Unit will be equipped with filter drier for R-410A refrigerant for field installation.

Operating Characteristics

- The capacity of the unit will meet or exceed ____ Btuh at a suction temperature of ____ °F/°C. The power consumption at full load will not exceed ____ kW.
- Combination of the unit and the evaporator or fan coil unit will have a total net cooling capacity of ____ Btuh or greater at conditions of ____ CFM entering air temperature at the evaporator at ____ °F/°C wet bulb and ____ °F/°C dry bulb, and air entering the unit at ____ °F/°C.
- The system will have a SEER of ____ Btuh/watt or greater at DOE conditions.

Electrical Requirements

- Nominal unit electrical characteristics will be ____ v, single phase, 60 hz. The unit will be capable of satisfactory operation within voltage limits of ____ v to ____ v.
- Nominal unit electrical characteristics will be ____ v, three phase, 60 hz. The unit will be capable of satisfactory operation within voltage limits of ____ v to ____ v.
- Unit electrical power will be single point connection.
- Control circuit will be 24v.

Special Features

- Refer to section of this literature identifying accessories and descriptions for specific features and available enhancements.

GENERAL TERMS OF LIMITED WARRANTY*

Sure Comfort® will furnish a replacement for any part of this product which fails in normal use and service within the applicable period stated, in accordance with the terms of the limited warranty.

*For complete details of the Limited and Conditional Warranties, including applicable terms and conditions, contact your local contractor or the Manufacturer for a copy of the product warranty certificate.

Conditional Parts
(Registration Required)Ten (10) Years



Sure Comfort®
P.O. Box 17010, Fort Smith, AR 72917

Before proceeding with installation, refer to installation instructions packaged with each model, as well as complying with all Federal, State, Provincial, and Local codes, regulations, and practices.