Comfort-Aire®

SE Series

FEATURES

- High heat-transfer efficiency and low static-pressure drop A-shaped coil
- Foil-faced insulation to prevent energy loss through the cabinet
- Factory-sealed cabinet certified to achieve 2% or less leakage rate at 1.0 inch water column
- Multi-stage blower Speed Control to align with varying capacity demands
- Multi-speed constant-torque ECM motor
- 4-position installation: Upflow, Horizontal Right, Downflow, Horizontal Left
- Horizontal and vertical condensate drain pans standard, primary and secondary condensate fittings
- Field installed electric heater kits: 5, 7.5, 10, 15, 20 kW available as accessories
- Multiple Electrical entry locations
- Dual front panel, blower and coil with slide track
- Integrated filter rack with toolless door access
- Easy-to-braze copper evaporator connection
- Field installed TXV available
- Advanced internal welding process to reduce potential corrosion
- AHRI and ETL listed
- Polymer condensate drain pan with UVC inhibitor to extend product lifetime
- Fully-insulated cabinet design

SAHC SERIES

MULTI-POSITION AIR HANDLER

Constant Torque Motor
Cooling Capacity: 24 - 60 kBTU/h

AHRI CERTIFIED

ETL LISTED c US Intertek

Warranty–5 years on parts
(Some limitations apply; see printed warranty for details.)
www.comfort-aire.com

R454B

MODEL NUMBER GUIDE

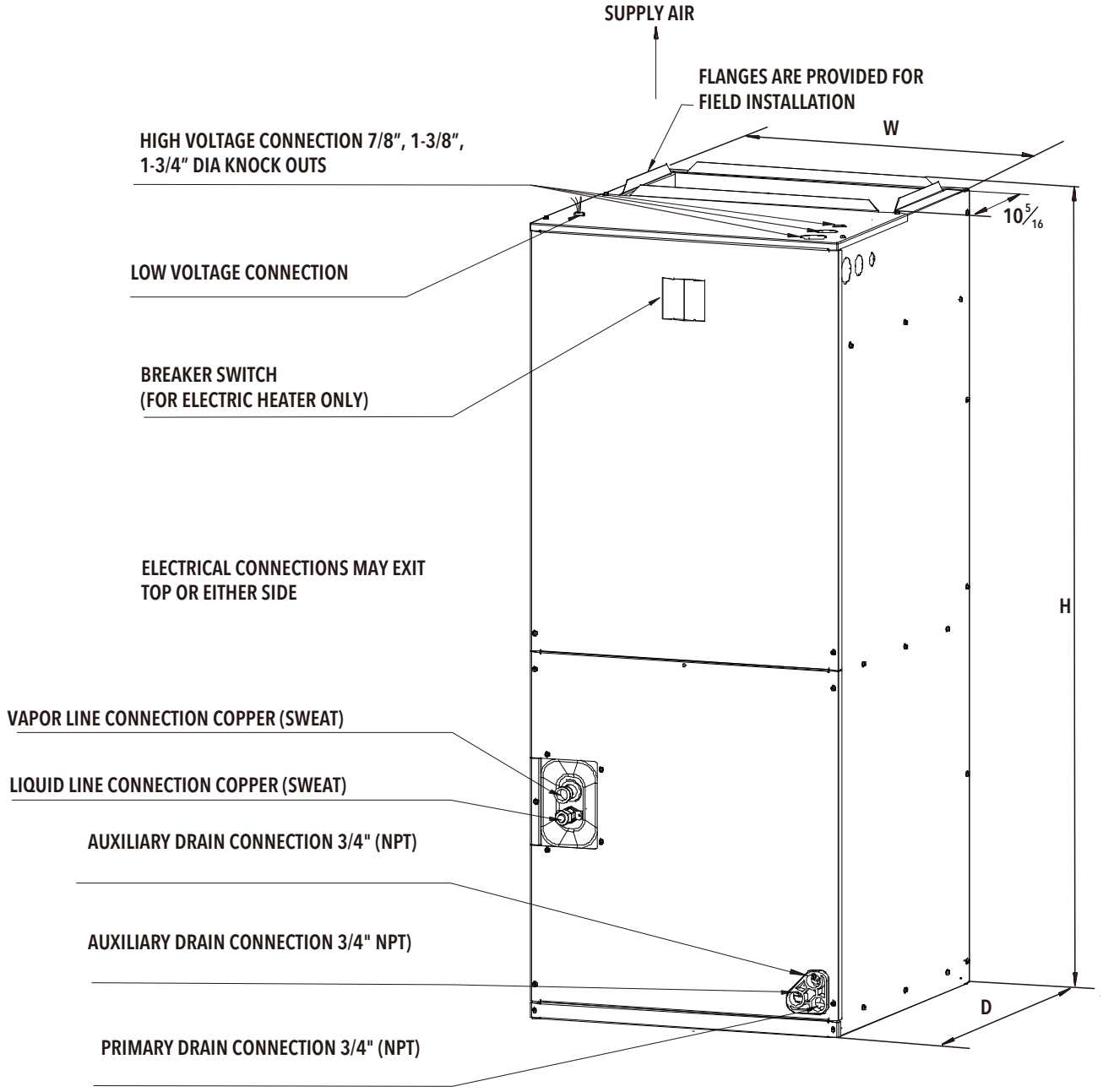
S	AH	C	24	S	1	A
SE Series	Air Handler	Constant Torque/ Motor	Capacity BTUH x 1000	Standard Efficiency	Power 1 = 208/230-1-60	Revision Level

SPECIFICATIONS

SPECIFICATIONS	SAHC24S1A	SAHC36S1A	SAHC48S1A	SAHC60S1A
NOMINAL RATING				
Cooling (BTU/h)	23,600	34,200	45,000	54,500
CFM (High/Low range)	740	1240	1540	1750
External Static Pressure(in.w.c)	0.58	0.58	0.58	0.58
ELECTRICAL DATA				
Voltage / Phase(60Hz)	208/230/1	208/230/1	208/230/1	208/230/1
Min. / Max. Voltage	187/253	187/253	187/253	187/253
Min. Circuit Amps	3.3	4.2	5.6	7.0
Max. OvercurrentProtection	15	15	15	15
FAN MOTOR				
Motor Type	ECM	ECM	ECM	ECM
Capacitor (uF)	/	/	/	/
Horsepower (HP)	1/3	1/2	3/4	3/4
Rated RPM	1050	1050	1050	1050
MOC	2.6	3.3	4.5	5.6
FAN BLOWER				
Material	Metal	Metal	Metal	Metal
Type	Centrifugal	Centrifugal	Centrifugal	Centrifugal
Diameter(in.)	10	10	10	10
Height(in.)	8	10	10	10
Coil drain Connection FPT (in.)	3/4	3/4	3/4	3/4
EVAPORATOR COIL				
Type	Aluminum-Hydrophilic Aluminum	Aluminum-Hydrophilic Aluminum	Aluminum-Hydrophilic Aluminum	Aluminum-Hydrophilic Aluminum
Tube Material	Aluminum	Aluminum	Aluminum	Aluminum
Tube Size(in.)	9/32	9/32	9/32	9/32
SOUND POWER				
Sound Power	67	70	72	75
REFRIGERANT CONNECTION SIZE				
Liquid Line Size (O.D.)	3/8	3/8	3/8	3/8
Suction Line Size (O.D.)	3/4	3/4	7/8	7/8
SERVICE VALVE				
Liquid (in.)	3/8	3/8	3/8	3/8
Suction (in.)	3/4	3/4	7/8	7/8

Comfort-Aire®

NOTE: 25" CLEARANCE IS REQUIRED IN THE FRONT OF THE UNIT FOR FILTER AND COIL MAINTENANCE.



UPFLOW CONFIGURATION SHOWN; MAY BE INSTALLED UPFLOW, DOWNFLOW, HORIZONTAL RIGHT OR LEFT.

	SAHC24S1A	SAHC36S1A	SAHC48S1A	SAHC60S1A
DIMENSIONS AND WEIGHTS				
Height (in.)	41 - 3/8	46 - 1/2	54 - 1/2	54 - 1/2
Width (in.)	18 - 1/8	19 - 5/8	22	22
Depth (in.)	20 - 1/2	21 - 5/8	24	24
Supply Duct (in.)	16	18	19 - 1/2	19 - 1/2
Weight (lbs.)	99	121	150	150

AIR FLOW DATA

Air Handler Model	Outdoor Unit Size(Tons)	Motor Speed		CFM Wet Coil without filter and Electric Heat								
				External Static Pressure-Inches W.C.[kPa]								
				0[0]	0.1[.025]	0.2[.050]	0.3[.075]	0.4[0.100]	0.5[0.125]	0.6[0.150]	0.7[0.175]	0.8[0.200]
SAHC24S1A	1.5	1	SCFM	676	608	550	492	422	369	311	274	233
			Power/W	72	78	82	87	92	97	102	107	112
			Current/A	0.63	0.67	0.7	0.74	0.77	0.81	0.84	0.88	0.9
		2	SCFM	770	717	666	615	552	512	457	406	364
			Power/W	98	103	109	114	120	124	130	136	140
			Current/A	0.81	0.85	0.89	0.93	0.97	1	1.04	1.09	1.12
		3	SCFM	903	856	808	767	722	665	618	577	535
			Power/W	143	148	154	159	166	172	178	183	189
			Current/A	1.14	1.18	1.22	1.26	1.31	1.36	1.41	1.45	1.49
		4	SCFM	987	945	900	861	821	766	737	677	636
			Power/W	179	185	191	197	203	210	215	223	229
			Current/A	1.42	1.46	1.51	1.55	1.6	1.65	1.69	1.75	1.8
		5	SCFM	1055.6	1012.3	970.6	930.3	883.4	844.9	811.8	774.8	715.5
			Power/W	211	217	224	230	237	244	249	255	264
			Current/A	1.66	1.71	1.76	1.81	1.86	1.91	1.95	2	2.06
SAHC24S1A	2	1	SCFM	676	608	550	492	422	369	311	274	233
			Power/W	72	78	82	87	92	97	102	107	112
			Current/A	0.63	0.67	0.7	0.74	0.7	0.81	0.84	0.88	0.9
		2	SCFM	770	717	666	615	552	512	457	406	364
			Power/W	98	103	109	114	120	124	130	136	140
			Current/A	0.81	0.85	0.89	0.93	0.97	1	1.04	1.09	1.12
		3	SCFM	903	856	808	767	722	665	618	577	535
			Power/W	143	148	154	159	166	172	178	183	189
			Current/A	1.14	1.18	1.22	1.26	1.31	1.36	1.41	1.45	1.49
		4	SCFM	987	945	900	861	821	766	737	677	636
			Power/W	179	185	191	197	203	210	215	223	229
			Current/A	1.42	1.46	1.51	1.55	1.6	1.65	1.69	1.75	1.8
		5	SCFM	1056	1012	971	930	883	845	817	775	715
			Power/W	211	214	224	230	237	244	249	255	264
			Current/A	1.66	1.71	1.76	1.81	1.86	1.91	1.95	2	2.06
SAHC36S1A	2.5	1	SCFM	1013	946	891	823	709	634	566	/	/
			Power/W	113	119	126	133	144	151	158	/	/
			Current/A	1.05	1.09	1.14	1.19	1.27	1.33	1.4	/	/
		2	SCFM	1180	1123	1072	1023	969	865	794	733	674
			Power/W	166	174	181	188	195	208	218	255	234
			Current/A	1.45	1.5	1.56	1.61	1.66	1.76	1.83	1.89	1.95
		3	SCFM	1335	1283	1231	1189	1146	1093	1009	923	864
			Power/W	224	232	240	248	255	262	276	288	299
			Current/A	1.87	1.93	1.99	2.05	2.1	2.15	2.25	2.35	2.42

--- Shaded boxes represent airflow outside the required 300-450 cfm/ton, which are not recommended.

AIR FLOW DATA CONT.

Air Handler Model	Outdoor Unit Size(Tons)	Motor Speed		CFM Wet Coil without filter and Electric Heat								
				External Static Pressure-Inches W.C.[kPa]								
				0[0]	0.1[.025]	0.2[.050]	0.3[.075]	0.4[0.100]	0.5[0.125]	0.6[0.150]	0.7[0.175]	0.8[0.200]
SAHC36S1A	2.5	4	SCFM	1484	1437	1386	1347	1309	1271	1231	1176	1075
			Power/W	299	308	317	325	334	342	350	361	378
			Current/A	2.42	2.49	2.55	2.61	2.67	2.73	2.79	2.87	2.99
		5	SCFM	1560	1520	1480	1442	1403	1378	1323	1248	1179
			Power/W	369	378	388	397	404	411	424	441	443
			Current/A	2.92	2.99	3.07	3.14	3.19	3.25	3.35	3.49	3.50
SAHC36S1A	3	1	SCFM	1013	946	891	823	709	634	566	/	/
			Power/W	113	119	126	133	144	151	158	/	/
			Current/A	1.05	1.09	1.14	1.19	1.27	1.33	1.4	/	/
		2	SCFM	1180	1123	1072	1023	969	865	794	733	674
			Power/W	166	174	181	188	195	208	218	255	234
			Current/A	1.45	1.5	1.56	1.61	1.66	1.76	1.83	1.89	1.95
		3	SCFM	1335	1283	1231	1189	1146	1093	1009	923	864
			Power/W	224	232	240	248	255	262	276	288	299
			Current/A	1.87	1.93	1.99	2.05	2.1	2.15	2.25	2.34	2.42
		4	SCFM	1484	1437	1386	1347	1309	1271	1231	1176	1075
			Power/W	299	308	317	325	334	342	350	361	378
			Current/A	2.42	2.49	2.55	2.61	2.67	2.73	2.79	2.87	2.99
		5	SCFM	1560	1520	1480	1442	1403	1378	1323	1248	1179
			Power/W	369	378	388	397	404	411	424	441	443
			Current/A	2.92	2.99	3.07	3.14	3.19	3.25	3.35	3.49	3.50
SAHC48S1A/ SAHC60S1A	3.5	1	SCFM	1420	1374	1320	1269	1218	1158	1037	957	/
			Power/W	198	209	220	226	231	241	260	270	/
			Current/A	1.56	1.63	1.71	1.77	1.83	1.90	2.02	2.10	/
		2	SCFM	1613	1558	1516	1469	1425	1375	1327	1274	1147
			Power/W	267	279	289	297	303	312	322	334	353
			Current/A	2.10	2.20	2.28	2.34	2.39	2.46	2.54	2.63	2.78
		3	SCFM	1796	1757	1707	1663	1622	1580	1539	1467	1451
			Power/W	369	383	398	408	419	428	439	450	465
			Current/A	2.78	2.87	2.96	3.03	3.10	3.17	3.25	3.32	3.41
		4	SCFM	1978	1944	1887	1850	1805	1765	1722	1678	1632
			Power/W	472	482	502	513	523	537	548	560	573
			Current/A	3.46	3.55	3.67	3.75	3.84	3.92	3.99	4.07	3.15
		5	SCFM	2123	2092	2051	2011	1971	1922	1889	1852	1818
			Power/W	575	590	605	621	634	651	662	675	690
			Current/A	4.17	4.26	4.38	4.47	4.57	4.67	4.74	4.83	4.92

--- Shaded boxes represent airflow outside the required 300-450 cfm/ton, which are not recommended.

AIR FLOW DATA CONT.

Air Handler Model	Outdoor Unit Size(Tons)	Motor Speed		CFM Wet Coil without filter and Electric Heat								
				External Static Pressure-Inches W.C.[kPa]								
				0[0]	0.1[.025]	0.2[.050]	0.3[.075]	0.4[0.100]	0.5[0.125]	0.6[0.150]	0.7[0.175]	0.8[0.200]
SAHC48S1A/ SAHC60S1A	4	1	SCFM	1420	1374	1320	1269	1218	1158	1037	957	/
			Power/W	198	209	220	226	231	241	260	270	/
			Current/A	1.56	1.63	1.71	1.77	1.83	1.90	2.02	2.10	/
		2	SCFM	1613	1558	1516	1469	1425	1375	1327	1274	1147
			Power/W	281	294	305	313	319	329	339	351	371
			Current/A	2.10	2.20	2.28	2.34	2.39	2.46	2.54	2.63	2.78
		3	SCFM	1796	1757	1707	1663	1622	1580	1539	1467	1451
			Power/W	369	383	398	408	419	428	439	450	465
			Current/A	2.78	2.87	2.96	3.03	3.10	3.17	3.25	3.32	3.41
		4	SCFM	1978	1944	1887	1850	1805	1765	1722	1678	1632
			Power/W	472	482	502	513	523	537	548	560	573
			Current/A	3.46	3.55	3.67	.75	3.84	3.92	3.99	4.07	4.15
		5	SCFM	2123	2092	2051	2011	1971	1922	1889	1852	1818
			Power/W	575	590	605	621	634	651	662	675	690
			Current/A	4.17	4.26	4.38	4.47	4.57	4.67	4.74	4.83	4.92
SAHC48S1A/ SAHC60S1A	5	1	SCFM	1420	1374	1320	1269	1218	1158	1037	957	/
			Power/W	198	209	220	226	231	241	260	270	/
			Current/A	1.56	1.63	1.71	1.77	1.83	1.90	2.02	2.10	/
		2	SCFM	1613	1558	1516	1469	1425	1375	1327	1274	1147
			Power/W	267	279	289	297	303	312	322	334	353
			Current/A	2.10	2.20	2.28	2.34	2.39	2.46	2.54	2.63	2.78
		3	SCFM	1796	1757	1707	1663	1622	1580	1539	1467	1451
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			Current/A	2.78	2.87	2.96	3.03	3.10	3.17	3.25	3.32	3.41
		4	SCFM	1978	1944	1887	1850	1805	1765	1722	1678	1632
			Power/W	472	482	502	513	523	537	548	560	573
			Current/A	3.46	3.55	3.67	3.75	3.84	3.92	3.99	4.07	4.15
		5	SCFM	2123	2092	2051	2011	1971	1922	1889	1852	1818
			Power/W	575	590	605	621	634	651	662	675	690
			Current/A	4.17	4.26	4.38	4.47	4.57	4.67	4.74	4.83	4.92

--- Shaded boxes represent airflow outside the required 300-450 cfm/ton, which are not recommended.

Factory installed piston size for each model. Additional piston sizes are provided in the ship with literature bag as necessary.

MODEL	47	52	56	58	60	64	68	70	73	75	80	83
24	X	X*	X									
36			X			X		X				
48								X	X		X*	
60								X	X		X*	

*Means that this piston is pre-installed

HEATER KITS

Model	Air Handler Capacity (kBTU/h)	Electric Heat(kW)	Min. Circuit Ampacity		Max. Fuse or Breaker (HACR) Ampacity		Blower Speed				
			240V	208V	240V	208V	1	2	3	4	5
SAHC24S1A											
EHK-05	24	5	26.1	22.6	30	25	•	•	•	•	•
EHK-08		7.5	39.1	33.9	40	35	x	x	•	•	•
EHK-10		10	52.1	45.2	60	25	x	x	•	•	•
SAHC36S1A											
EHK-05	36	5	26.1	22.6	30	25	•	•	•	•	•
EHK-08		7.5	39.1	33.9	40	35	x	•	•	•	•
EHK-10		10	52.1	45.2	60	25	x	x	•	•	•
EHK-15		15	52.1/26.1	45.2/22.6	60/30	50/25	x	x	•	•	•
EHK-20		20	52.1/52.1	45.2/45.2	60/60	50/50	x	x	x	•	•
SAHC48S1A											
EHK-05	48	5	26.1	22.6	30	25	x	x	•	•	•
EHK-08		7.5	39.1	33.9	40	35	x	x	•	•	•
EHK-10		10	52.1	45.2	60	25	x	x	•	•	•
EHK-15		15	52.1/26.1	45.2/22.6	60/30	50/25	x	x	•	•	•
EHK-20		20	52.1/52.1	45.2/45.2	60/60	50/50	x	x	x	•	•
SAHC60S1A											
EHK-05	60	5	26.1	22.6	30	25	x	x	•	•	•
EHK-08		7.5	39.1	33.9	40	35	x	x	•	•	•
EHK-10		10	52.1	45.2	60	25	x	x	•	•	•
EHK-15		15	52.1/26.1	45.2/22.6	60/30	50/25	x	x	•	•	•
EHK-20		20	52.1/52.1	45.2/45.2	60/60	50/50	x	x	x	•	•

NOTE: Heat kit suitable for AHU 4-way position installation.
Ampacities for MCA and Fuse/breaker including the blower motor.

ELECTRIC HEATER KITS

Kit	Description	Ref.Air Handler Use
EHK-05	5kW Heat Strip	24/36/48/60
EHK-08	7.5kW Heat Strip	24/36/48/60
EHK-10	10kW Heat Strip	24/36/48/60
EHK-15	15kW Heat Strip, double Breaker panel	36/48/60
EHK-20	20kW Heat Strip, double Breaker panel	36/48/60

Comfort-Aire®

Comfort-Aire®

SE Series

"This product complies with all California product labeling laws including, but not limited to, the Safe Drinking Water and Toxic Enforcement Act of 1986, more commonly known as Proposition 65."

Due to ongoing product improvements, specifications and dimensions are subject to change and correction without notice or incurring obligations. Determining the application and suitability for use of any product is the responsibility of the installer. Additionally, the installer is responsible for verifying dimensional data on the actual product prior to beginning any installation preparations.

Third party incentive and rebate programs have precise requirements as to product performance and certification. All products meet applicable regulations in effect on date of manufacture; however, certifications are not necessarily granted for the life of a product. Therefore, it is the responsibility of the applicant to determine whether a specific model qualifies for these incentive/rebate programs.

1900 Wellworth Ave., Jackson MI 49203 • 517.787.2100
www.heatcontroller.com • www.comfort-aire.com

HEAT CONTROLLER
Confidence in any climate
Comfort-Aire®

CA-SAHC_SPEC 10/26