

SUBMITTAL DATA SHEET

Series Name: Star Pro Series
Model Number: BAH32-24-15 (307) / LUC32-24-15 (301)

Air Handler Heat Pump System	
Location:	Approval:
Engineer:	Date:
Submitted to:	Construction:
Submitted by:	Unit Qty:
Reference:	Unit Designation (Model #):



INDOOR SPECIFICATION	
Indoor Air Flow (High/Low) (CFM)	850/680
Indoor Noise Level (High/Low) (dBA)	42/38
Dimension (W×D×H)	inch 17-33/64×21-1/32×45
	mm 445×534×1143
Package (W×D×H)	inch 20-55/64×26-37/64×46-17/64
	mm 530×675×1175
Net/Gross Weight	lbs 115/128
	kg 52/58

OUTDOOR SPECIFICATION	
Compressor Type	ROTARY
Compressor Model	KTN210D60UMT3
Refrigerant	R32
Refrigerant Oil Charge(mL)	630
Refrigerant Oil	VG74
Outdoor Air Flow (Max) (CFM)	2100.0
Outdoor Noise Level (dBA)	58
Dimension (W×D×H)	inch 23-5/8×23-5/8×25
	mm 600×600×635
Package (W×D×H)	inch 25-63/64×25-63/64×26-3/16
	mm 660×660×665
Net/Gross Weight	lbs 114/120
	kg 51.5/54.5

EFFICIENCY			
Cooling		Heating	
SEER2	15.0	HSPF2-4	8.1
EER2	9.4	COP	3.20

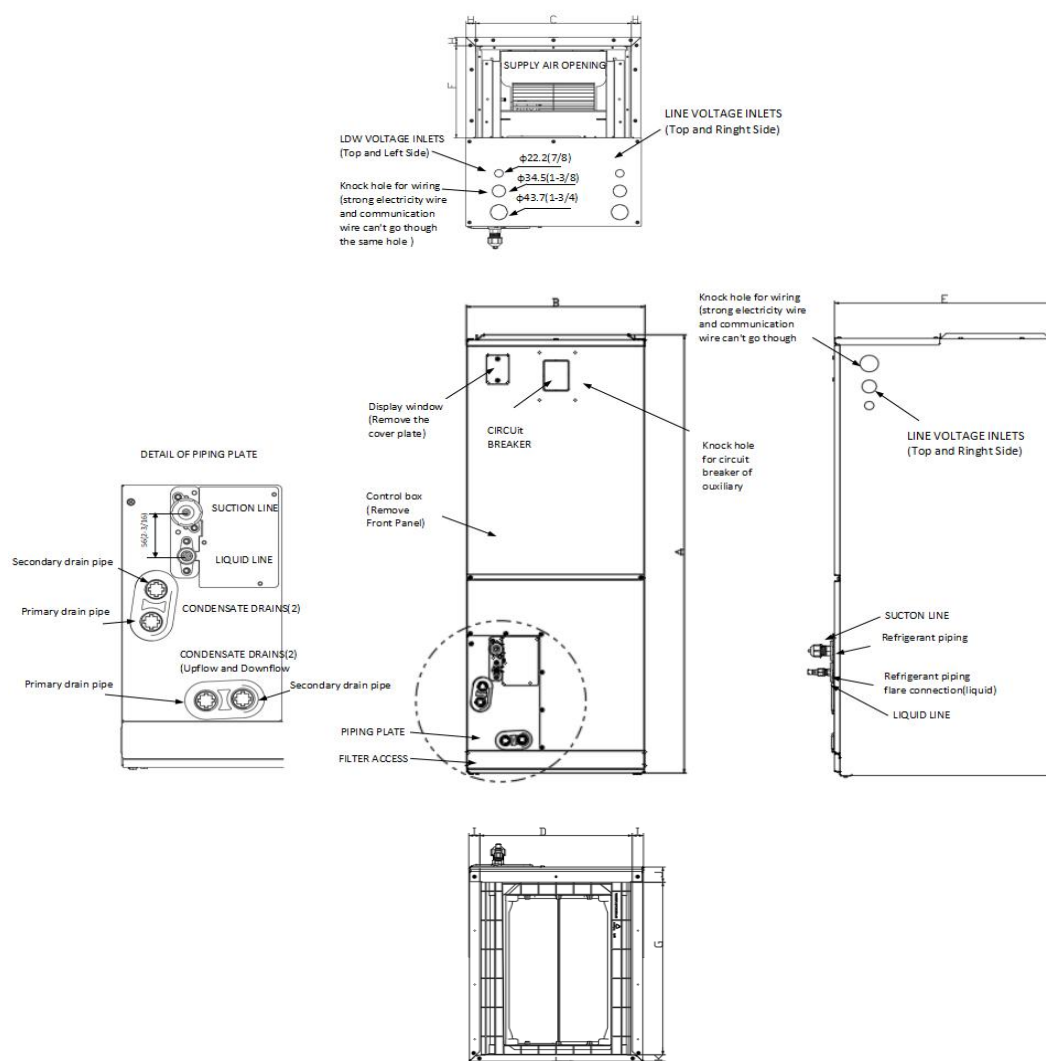
PERFORMANCE of Cooling	
Cooling (Btu/hr)	
Rated Capacity	23000
Min/Max Capacity	6800~25000
Moisture Removal(L/h)	1.93
Standard Operating Range(°F/°C)	5~131(-15~55)
Rated Cooling Conditions: Indoor: 80°F DB/67°F WB Outdoor: 95°F DB/75°F WB	

PERFORMANCE of Heating	
Heating (Btu/hr)	
1. @ 47°F Rated	26000
2. @ 47°F Min/Max Capacity	9000~28000
3. @ 17°F Rated	13000
4. @ 5°F Rated: Capacity / COP	18500/1.75
5. @ 5°F Max: Capacity	19000
Standard Operating Range(°F/°C)	-4~75(-20~24)
1. Rated Heating Conditions: Indoor: 70°F DB/60°F WB Outdoor: 47°F DB/43°F WB	
2. Rated Heating Conditions: Indoor: 70°F DB/60°F WB Outdoor: 17°F DB/15°F WB	
3. Heating Conditions, Compressor Operating at Max. Frequency Indoor: 70°F DB/60°F WB Outdoor: 5°F DB/5°F WB	

ELECTRICAL	
Indoor Power Supply	208/230V,60Hz,1Ph
Indoor MCA 115V/(208/230V)	2.3
Indoor MOP	3
Outdoor Power Supply	208/230V,60Hz,1Ph
Outdoor MCA	20
Outdoor MOP	25
Communication Wiring	AWG 25×3 Shielded
Compressor RLA	8.4
Outdoor Fan Motor RLA	2.3
Outdoor Fan Motor W	200
Indoor Fan Motor RLA	1.78
Indoor Fan Motor W	150
System Power Input @ Cooling (W)	2450(750~2700)
System Power Input @ Heating (W)	2250(660~2600)
MCA: Min. circuit amps (A)	MOCP: Max. over current protection (A)
RLA: Rated load amps (A)	W: Fan motor rated output (W)

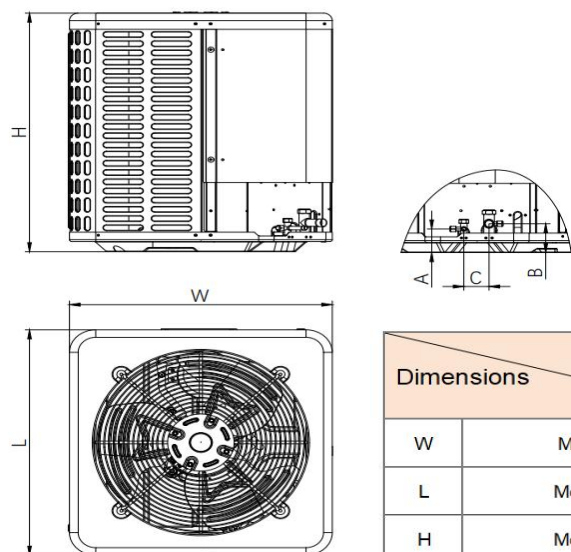
PIPING	
Throttle type(Indoor)	Piston
Throttle type(Outdoor)	Capillary
Liquid Size	9.52mm(3/8in)
Gas Size	19mm(3/4in)
Max. Piping Length(ft/m)	164(50)
Max. Height Difference(ft/m)	82(25)
Max. Pre-charged Length(ft/m)	24.6(7.5)
Refrigerant Pre-charged Amount(oz/kg)	75.84(2.15)
Additional Charge of Refrigerant((oz/ft)/(g/m))	0.52(48)
Connection Method	Flared

Indoor Unit Dimension



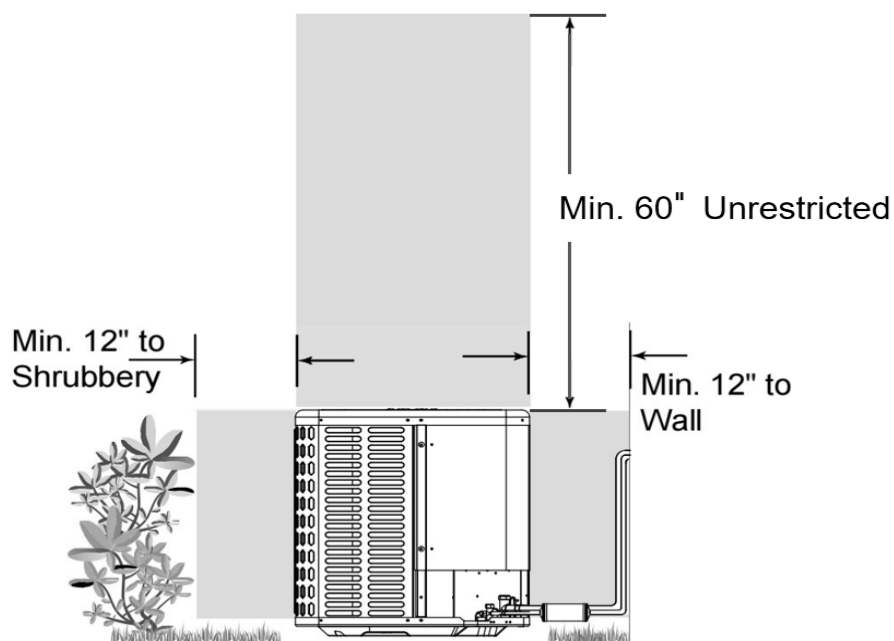
Dimensions		Model		18K/24K		30K/36K		48K/60K	
				inch	mm	inch	mm	inch	mm
A	Model Height			45-3/4	1162	49-49/64	1264	53-47/64	1365
B	Model width			17-41/64	448	21-9/64	537	24-39/64	625
C	Supply Air Opening width			15-5/8	397	19-9/64	486	22-19/32	574
D	Return Air Opening Width			15-25/64	391	18-47/64	476	22-23/64	568
E	Model Depth			21-7/64	536	21-7/64	536	21-7/64	536
F	Supply Air Opening Depth			10-9/32	261	10-9/32	261	10-9/32	261
G	Return Air Opening Depth			18-23/32	475.5	18-23/32	475.5	18-23/32	475.5
H	Supply Air Opening Clearance			15/16	24	15/16	24	15/16	24
I	Return Air Opening Side Clearance			1-1/8	28.5	1-1/8	28.5	1-1/8	28.5
J	Return Air Opening Front Clearance			1-21/32	42	1-21/32	42	1-21/32	42
K	Return Air Opening Back Clearance			45/64	18	45/64	18	45/64	18

Outdoor Unit Dimension

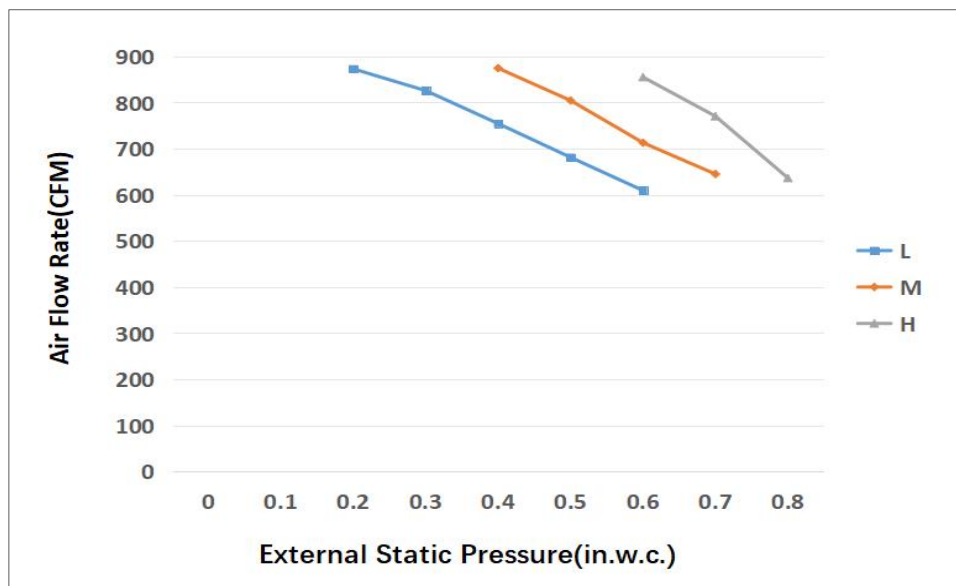


Dimensions \ Model		18K/24K		30K/36K		48K/60K	
		inch	mm	inch	mm	inch	mm
W	Model width	23-5/8	600	29-9/64	740	29-9/64	740
L	Model length	23-5/8	600	29-9/64	740	29-9/64	740
H	Model height	25	635	25	635	32-7/8	835
A	Liquid side valve height	2-31/64	63	2-31/64	63	2-31/64	63
B	Distance between two valves	3-1/32	77	3-1/32	77	3-1/32	77
C	Gas side valve height	2-9/32	58	2-9/32	58	2-9/32	58

Installation Instruction For Outdoor Unit



Fan Performance For Indoor Unit



Features

- Multi-position installation: horizontal(left or right), vertical(up or down)
- External static pressure up to 0.80 In.W.G
- 1 inch R4.2 fiberglass free insulation reduces condensation and boosts efficiency(optional)
- Optional Auxiliary heat kit up to 20kW
- Easy Maintenance
- Multiple control options available:
 - Wired controller with built-in WiFi
 - Third-Party 24V Thermostat
- Adaptive Control System
- Crankcase heater equipped as standard

ComfortStar®

Air Conditioning & Heating Products

Performance Capacity Ratings

COOLING PERFORMANCE DATA

OD_Model	ID_Model	Furnace	Brand	ARIREF	ID_Type	Stage	Est_Airfl Low	ACHP	IshSVTC												
BAH32-24-15	LUC32-24-15		ComfortStar		A	High	680	H													
OUTDOOR DB	IWB(°F)	59					63					67					71				
	IDB (°F)	72	74	76	78	80	72	74	76	78	80	72	74	76	78	80	72	74	76	78	80
85	TC ¹	22.10	22.17	22.23	22.30	22.37	23.50	23.57	23.64	23.71	23.78	24.90	24.97	25.05	25.12	25.20	26.50	26.58	26.66	26.74	26.82
	Sensible ²	18.39	20.04	21.69	22.10	22.10	14.87	16.53	18.18	19.83	21.49	11.28	12.93	14.59	16.24	17.89	7.70	9.35	11.00	12.65	14.31
	kW	1.77	1.77	1.77	1.78	1.78	1.77	1.77	1.77	1.78	1.78	1.77	1.77	1.77	1.78	1.78	1.78	1.78	1.78	1.79	1.79
90	TC ¹	21.50	21.56	21.63	21.69	21.76	22.80	22.87	22.94	23.01	23.07	24.30	24.37	24.45	24.52	24.59	25.80	25.88	25.96	26.03	26.11
	Sensible ²	18.09	19.74	21.40	21.50	21.50	14.56	16.21	17.86	19.52	21.17	11.02	12.68	14.33	15.99	17.64	7.42	9.07	10.73	12.38	14.03
	kW	1.86	1.86	1.86	1.87	1.87	1.86	1.86	1.86	1.87	1.87	1.87	1.87	1.87	1.88	1.88	1.88	1.88	1.88	1.89	1.89
95	TC ¹	20.80	20.86	20.92	20.99	21.05	22.20	22.27	22.33	22.40	22.47	23.60	23.67	23.74	23.81	23.88	25.10	25.18	25.25	25.33	25.40
	Sensible ²	17.75	19.40	20.80	20.80	20.80	14.28	15.93	17.59	19.24	20.90	10.73	12.38	14.03	15.68	17.34	7.15	8.80	10.45	12.10	13.76
	kW	1.95	1.95	1.95	1.96	1.96	1.96	1.96	1.96	1.97	1.97	1.97	1.97	1.97	1.98	1.98	1.98	1.98	1.98	1.99	1.99
100	TC ¹	20.20	20.26	20.32	20.38	20.44	21.50	21.56	21.63	21.69	21.76	22.90	22.97	23.04	23.11	23.18	24.40	24.47	24.55	24.62	24.69
	Sensible ²	17.46	19.11	20.20	20.20	20.20	13.97	15.62	17.27	18.93	20.58	10.43	12.08	13.74	15.39	17.05	6.88	8.53	10.18	11.83	13.48
	kW	2.05	2.05	2.05	2.06	2.06	2.06	2.06	2.06	2.07	2.07	2.07	2.07	2.07	2.08	2.08	2.08	2.08	2.08	2.09	2.09
105	TC ¹	19.50	19.56	19.62	19.68	19.74	20.80	20.86	20.92	20.99	21.05	22.20	22.27	22.33	22.40	22.47	23.60	23.67	23.74	23.81	23.88
	Sensible ²	17.12	18.78	19.50	19.50	19.50	13.65	15.30	16.96	18.61	20.27	10.14	11.79	13.45	15.10	16.76	6.56	8.22	9.87	11.52	13.18
	kW	2.16	2.16	2.16	2.17	2.17	2.17	2.17	2.17	2.18	2.18	2.18	2.18	2.18	2.19	2.19	2.19	2.19	2.19	2.20	2.20
115	TC ¹	18.10	18.15	18.21	18.26	18.32	19.40	19.46	19.52	19.58	19.63	20.60	20.66	20.72	20.79	20.85	22.00	22.07	22.13	22.20	22.27
	Sensible ²	16.45	18.10	18.10	18.10	18.10	13.03	14.68	16.33	17.99	19.40	9.48	11.13	12.78	14.44	16.10	5.95	7.60	9.25	10.91	12.56
	kW	2.40	2.40	2.40	2.41	2.41	2.41	2.41	2.41	2.41	2.42	2.42	2.42	2.42	2.42	2.43	2.43	2.44	2.44	2.44	2.45

HEATING PERFORMANCE DATA

Model	Heating		Outdoor conditions (DB)										
	Indoor Conditions DB		5°F -15°C	10°F -12.2°C	17°F -8.3°C	20°F -6.7°C	25°F -3.9°C	32°F 0°C	35°F 1.7°C	40°F 4.4°C	47°F 8.3°C	50°F 10°C	57°F 13.9°C
LUC32-24-15 BAH32-24-15 (208-230V)	60°F (15.6°C)	TC	18.53	19.32	20.10	21.38	22.65	23.92	25.20	26.47	27.74	29.02	30.29
		Input	2.58	2.47	2.40	2.40	2.40	2.40	2.41	2.41	2.41	2.41	2.42
	65°F (18.3°C)	TC	17.99	18.76	19.52	20.75	21.99	23.23	24.46	25.70	26.93	28.17	29.41
		Input	2.64	2.52	2.45	2.45	2.45	2.45	2.45	2.46	2.46	2.46	2.46
	70°F (21.1°C)	TC	17.47	18.21	18.95	20.15	21.35	22.55	23.75	24.95	26.15	27.35	28.55
		Input	2.69	2.57	2.49	2.50	2.50	2.50	2.50	2.51	2.51	2.51	2.52
	75°F (23.9°C)	TC	16.95	17.66	18.38	19.55	20.71	21.87	23.04	24.20	25.37	26.53	27.69
		Input	2.74	2.62	2.54	2.55	2.55	2.55	2.56	2.56	2.56	2.56	2.57