

SUBMITTAL DATA SHEET

Series Name: Star Pro Series
Model Number: BAH32-18-15 (306) / LUC32-18-15 (29Z)

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)	680/400
Indoor Noise Level (High/Low) (dBA)	38.5/34
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 112/126
	kg 51/57

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 111/118
	kg 50.5/53.5

EFFICIENCY			
Cooling		Heating	
SEER2	15.0	HSPF2-4	8.4
EER2	11.3	COP	3.50

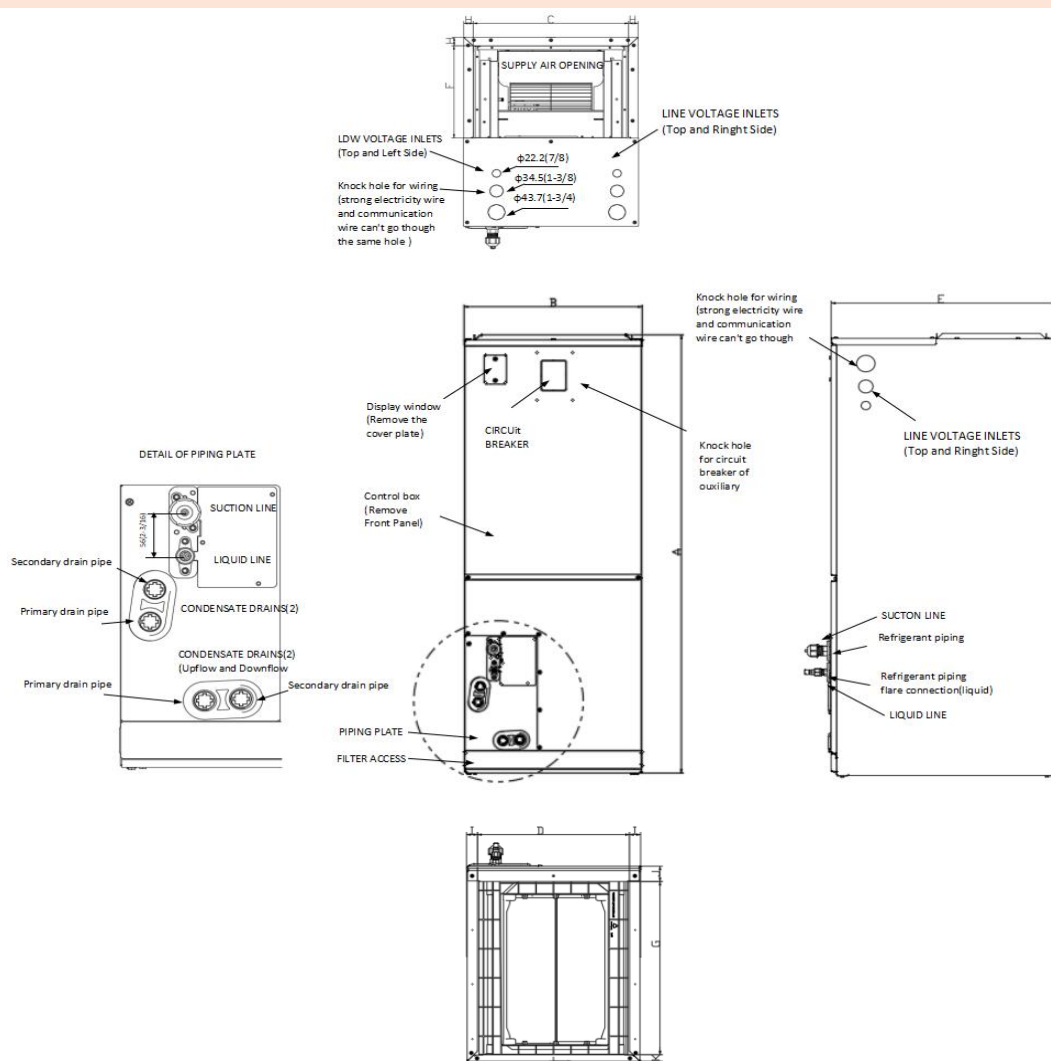
PERFORMANCE of Cooling	
Cooling (Btu/hr)	
Rated Capacity	18000
Min/Max Capacity	6500~19000
Moisture Removal(L/h)	1.67
Standard Operating Range(°F/°C)	5~131(-15~55)
Rated Cooling Conditions: Indoor: 80°F DB/67°F WB Outdoor: 95°F DB/75°F WB	

PERFORMANCE of Heating	
Heating (Btu/hr)	
1. @ 47°F Rated	19000
1. @ 47°F Min/Max Capacity	6800~21000
2. @ 17°F Rated	12500
3. @ 5°F Rated: Capacity / COP	17000/1.85
3. @ 5°F Max: Capacity	16000
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)	2.1
Indoor MOP	3
Outdoor Power Supply	208/230V,60Hz,1Ph
Outdoor MCA	16
Outdoor MOP	20
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	1.29
Indoor Fan Motor W	135
System Power Input @ Cooling (W)	1590(600~1800)
System Power Input @ Heating (W)	1590(500~1860)
MCA: Min. circuit amps (A)	MOCP: Max. over current protection (A)
RLA: Rated load amps (A)	W: Fan motor rated output (W)

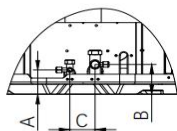
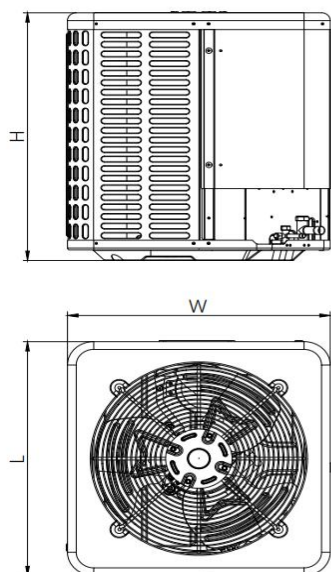
PIPING	
Throttle type(Indoor)	Piston
Throttle type(Outdoor)	Capillary
Liquid Size	9.52mm(3/8in)
Gas Size	19mm(3/4in)
Max. Piping Length(ft/m)	98.4(30)
Max. Height Difference(ft/m)	65.6(20)
Max. Pre-charged Length(ft/m)	24.6(7.5)
Refrigerant Pre-charged Amount(oz/kg)	65.26(1.85)
Additional Charge of Refrigerant((oz/ft)/(g/m))	0.52(48)
Connection Method	Welding

Indoor Unit Dimension



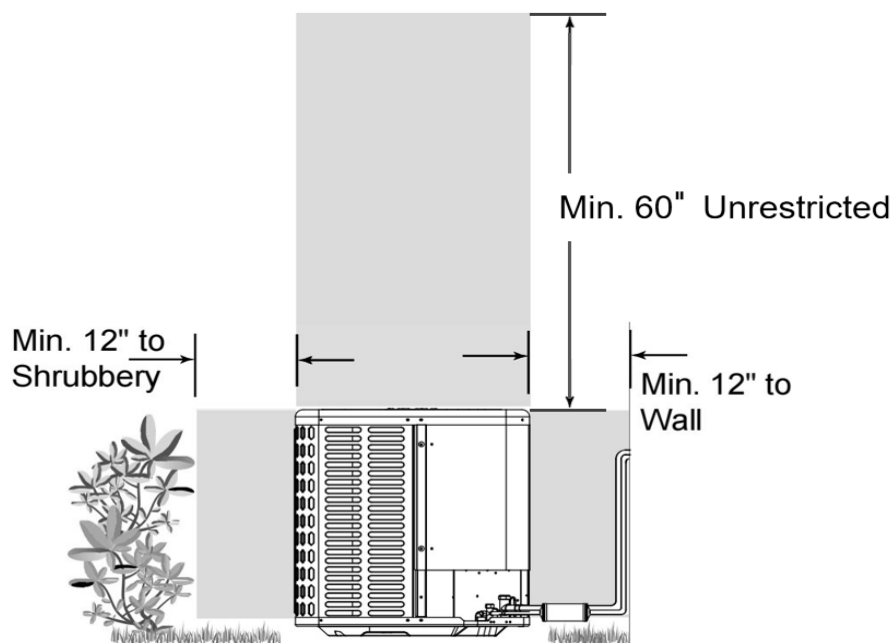
Dimensions		Model		18K/24K		30K/36K		48K/60K	
				inch	mm	inch	mm	inch	mm
A	Model Height			45-3/4	1162	49-49/64	1264	53-47/64	1365
B	Model width			17-41/64	448	21-9/64	537	24-39/64	625
C	Supply Air Opening width			15-5/8	397	19-9/64	486	22-19/32	574
D	Return Air Opening Width			15-25/64	391	18-47/64	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

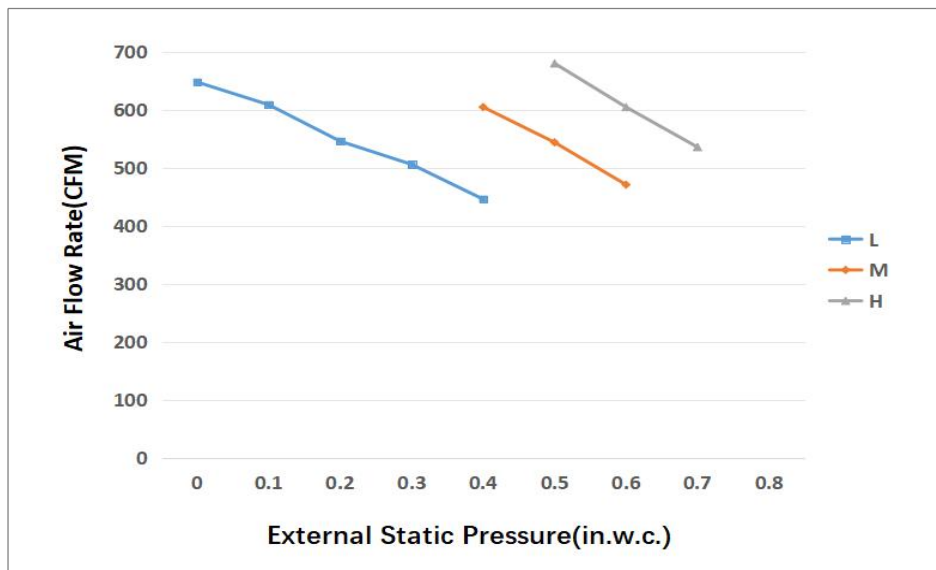


Dimensions \ Model		18K/24K		30K/36K		48K/60K	
		inch	mm	inch	mm	inch	mm
W	Model width	23-5/8	600	29-9/64	740	29-9/64	740
L	Model length	23-5/8	600	29-9/64	740	29-9/64	740
H	Model height	25	635	25	635	32-7/8	835
A	Liquid side valve height	2-31/64	63	2-31/64	63	2-31/64	63
B	Distance between two valves	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	ARTREF	ID_Type	Stage	Est_AirF _{low}	ACHP	IsHSVTC																	
BAH32-18-15	LUC32-18-15		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	17.10	17.15	17.20	17.25	17.31	18.20	18.25	18.31	18.36	18.42	19.30	19.36	19.42	19.47	19.53	20.50	20.56	20.62	20.69	20.75					
	Sensible ²	13.54	14.66	15.78	16.91	17.10	11.15	12.27	13.39	14.52	15.64	8.69	9.82	10.94	12.06	13.19	6.23	7.35	8.47	9.59	10.72					
	kW	1.37	1.37	1.37	1.37	1.38	1.37	1.37	1.37	1.37	1.38	1.38	1.38	1.38	1.38	1.39	1.38	1.38	1.38	1.38	1.39					
90	TC ¹	16.60	16.65	16.70	16.75	16.80	17.70	17.75	17.81	17.86	17.91	18.80	18.86	18.91	18.97	19.03	20.00	20.06	20.12	20.18	20.24					
	Sensible ²	13.28	14.41	15.53	16.60	16.60	10.91	12.03	13.16	14.28	15.41	8.47	9.60	10.72	11.84	12.97	6.03	7.15	8.27	9.39	10.52					
	kW	1.44	1.44	1.44	1.44	1.45	1.44	1.44	1.44	1.44	1.45	1.45	1.45	1.45	1.45	1.46	1.46	1.46	1.46	1.46	1.47					
95	TC ¹	16.20	16.25	16.30	16.35	16.40	17.20	17.25	17.30	17.36	17.41	18.30	18.35	18.41	18.47	18.52	19.40	19.46	19.52	19.58	19.63					
	Sensible ²	13.08	14.21	15.33	16.20	16.20	10.68	11.80	12.92	14.05	15.17	8.26	9.38	10.51	11.63	12.75	5.78	6.91	8.03	9.15	10.28					
	kW	1.51	1.51	1.51	1.51	1.52	1.52	1.52	1.52	1.52	1.53	1.52	1.52	1.52	1.52	1.53	1.53	1.53	1.53	1.53	1.54					
100	TC ¹	15.70	15.75	15.79	15.84	15.89	16.70	16.75	16.80	16.85	16.90	17.80	17.85	17.91	17.96	18.01	18.90	18.96	19.01	19.07	19.13					
	Sensible ²	12.83	13.96	15.08	15.70	15.70	10.45	11.57	12.69	13.82	14.94	8.04	9.17	10.29	11.41	12.54	5.58	6.71	7.83	8.95	10.08					
	kW	1.59	1.59	1.59	1.59	1.60	1.60	1.60	1.60	1.60	1.61	1.60	1.60	1.60	1.60	1.61	1.61	1.61	1.61	1.61	1.62					
105	TC ¹	15.20	15.25	15.29	15.34	15.38	16.20	16.25	16.30	16.35	16.40	17.20	17.25	17.30	17.36	17.41	18.30	18.35	18.41	18.47	18.52					
	Sensible ²	12.59	13.71	14.84	15.20	15.20	10.22	11.34	12.46	13.59	14.71	7.79	8.91	10.03	11.16	12.28	5.35	6.47	7.59	8.71	9.84					
	kW	1.67	1.67	1.67	1.68	1.68	1.68	1.68	1.68	1.68	1.69	1.69	1.69	1.69	1.69	1.70	1.70	1.70	1.70	1.71	1.71					
115	TC ¹	14.10	14.14	14.18	14.23	14.27	15.00	15.05	15.09	15.14	15.18	16.00	16.05	16.10	16.14	16.19	17.10	17.15	17.20	17.25	17.31					
	Sensible ²	12.05	13.17	14.10	14.10	14.10	9.67	10.79	11.92	13.04	14.17	7.27	8.40	9.52	10.65	11.77	4.87	6.00	7.12	8.24	9.37					
	kW	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	1.88	1.89	1.89	1.89	1.89	1.89	1.90	1.90				

HEATING PERFORMANCE DATA

Model	Heating		Outdoor conditions (DB)										
	Indoor Conditions DB		5°F	10°F	17°F	20°F	25°F	32°F	35°F	40°F	47°F	50°F	57°F
			-15°C	-12.2°C	-8.3°C	-6.7°C	-3.9°C	0°C	1.7°C	4.4°C	8.3°C	10°C	13.9°C
LUC32-18-15 BAH32-18-15 (208-230V)	60°F (15.6°C)	TC	13.65	16.09	18.53	18.85	19.17	19.49	19.81	20.13	20.66	20.78	20.96
	65°F (18.3°C)	Input	1.81	1.78	1.74	1.71	1.67	1.64	1.61	1.58	1.55	1.46	1.42
		TC	13.26	15.63	17.99	18.30	18.61	18.92	19.23	19.54	20.05	20.18	20.35
	70°F (21.1°C)	Input	1.85	1.81	1.78	1.74	1.71	1.67	1.64	1.61	1.58	1.49	1.45
		TC	12.87	15.17	17.47	17.77	18.07	18.37	18.67	18.97	19.47	19.59	19.76
	75°F (23.9°C)	Input	1.89	1.85	1.81	1.78	1.74	1.71	1.68	1.64	1.61	1.52	1.48
		TC	12.48	14.71	16.95	17.24	17.53	17.82	18.11	18.40	18.89	19.00	19.17
		Input	1.92	1.89	1.85	1.81	1.78	1.74	1.71	1.68	1.64	1.55	1.51