



SUBMITTAL DATA SHEET

Series Name: Star Pro Series
Model Number: BAH32-60-15 (30B) / LUC32-60-15 (30S)

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)	1740/750
Indoor Noise Level (High/Low) (dBA)	53/46
Dimension (W×D×H)	inch 24-31/64×21-1/32×52-63/64
	mm 622×534×1346
Package (W×D×H)	inch 27-7/8×26-37/64×54-9/64
	mm 708×675×1375
Net/Gross Weight	lbs 164/183
	kg 74.5/83

OUTDOOR SPECIFICATION	
Compressor Type	TWIN-ROTARY
Compressor Model	KTM310D85UMT
Refrigerant	R32
Refrigerant Oil Charge(mL)	870
Refrigerant Oil	VG74
Outdoor Air Flow (Max) (CFM)	3050.0
Outdoor Noise Level (dBA)	60
Dimension (W×D×H)	inch 29-9/64×29-9/64×32-7/8
	mm 740×740×835
Package (W×D×H)	inch 30-5/16×30-5/16×34-1/16
	mm 770×770×865
Net/Gross Weight	lbs 170/181
	kg 77/82

EFFICIENCY			
Cooling		Heating	
SEER2	15.0	HSPF2-4	8.5
EER2	8.0	COP	3.50

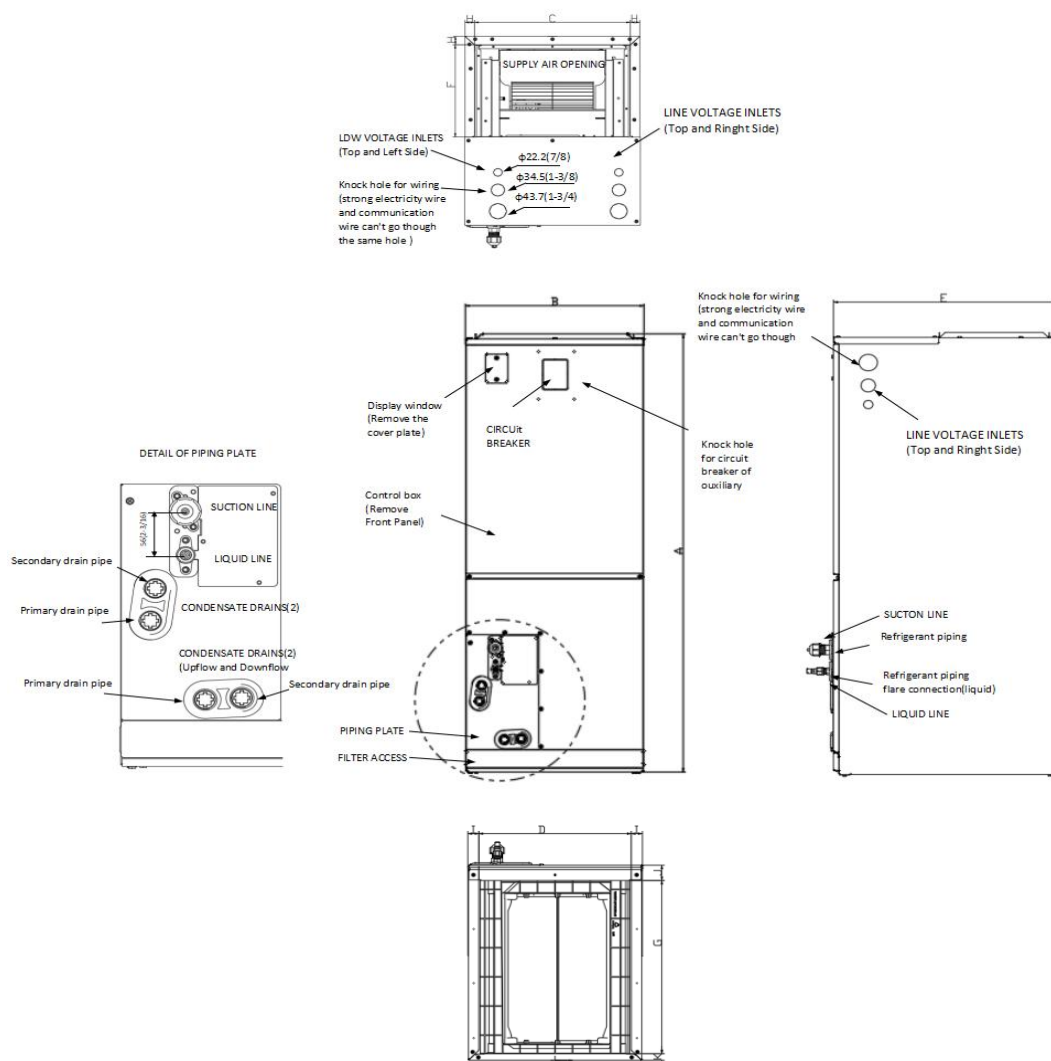
PERFORMANCE of Cooling	
Cooling (Btu/hr)	
Rated Capacity	52500
Min/Max Capacity	14000~53000
Moisture Removal(L/h)	5.5
Standard Operating Range(°F/°C)	5~131(-15~55)
Rated Cooling Conditions:	
Indoor: 80°F DB/67°F WB	
Outdoor: 95°F DB/75°F WB	

PERFORMANCE of Heating	
Heating (Btu/hr)	
1. @ 47°F Rated	54000
2. @ 47°F Min/Max Capacity	13400~55000
3. @ 17°F Rated	34500
4. @ 5°F Rated: Capacity / COP	30000/1.71
5. @ 5°F Max: Capacity	36000
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	
Indoor: 70°F DB/60°F WB	
Operating at Max. Frequency	
Outdoor: 5°F DB/5°F WB	

ELECTRICAL	
Indoor Power Supply	208/230V,60Hz,1Ph
Indoor MCA 115V/(208/230V)	7
Indoor MOP	10
Outdoor Power Supply	208/230V,60Hz,1Ph
Outdoor MCA	42
Outdoor MOP	50
Communication Wiring	AWG 25×3 Shielded
Compressor RLA	5.25
Outdoor Fan Motor RLA	2.3
Outdoor Fan Motor W	200
Indoor Fan Motor RLA	5.4
Indoor Fan Motor W	560
System Power Input @ Cooling (W)	6550(900~6800)
System Power Input @ Heating (W)	4550(900~6800)
MCA: Min. circuit amps (A)	MOCP: Max. over current protection (A)
RLA: Rated load amps (A)	W: Fan motor rated output (W)

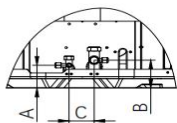
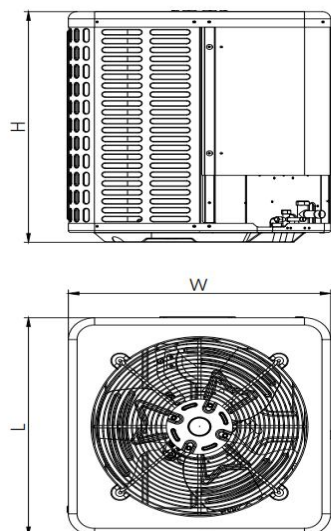
PIPING	
Throttle type(Indoor)	Piston
Throttle type(Outdoor)	Capillary
Liquid Size	9.52mm(3/8in)
Gas Size	19mm(3/4in)
Max. Piping Length(ft/m)	246(75)
Max. Height Difference(ft/m)	98.4(30)
Max. Pre-charged Length(ft/m)	24.6(7.5)
Refrigerant Pre-charged Amount(oz/kg)	119.93(3.4)
Additional Charge of Refrigerant((oz/ft)/(g/m))	0.52(48)
Connection Method	Flared

Indoor Unit Dimension



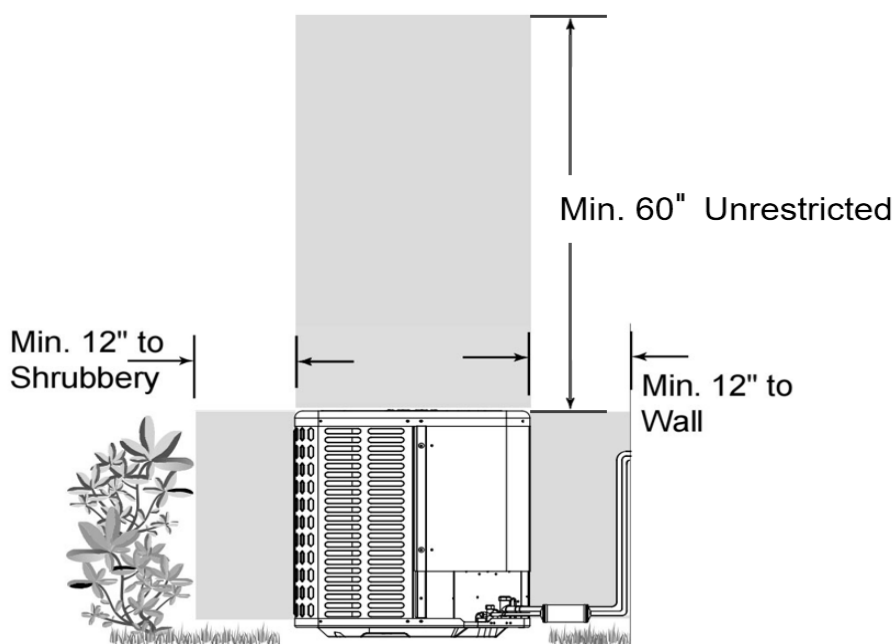
Dimensions		Model		18K/24K		30K/36K		48K/60K	
				inch	mm	inch	mm	inch	mm
A	Model Height			45-3/4	1162	49-49/64	1264	53-47/64	1365
B	Model width			17-41/64	448	21-9/64	537	24-39/64	625
C	Supply Air Opening width			15-5/8	397	19-9/64	486	22-19/32	574
D	Return Air Opening Width			15-25/64	391	18-47/64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

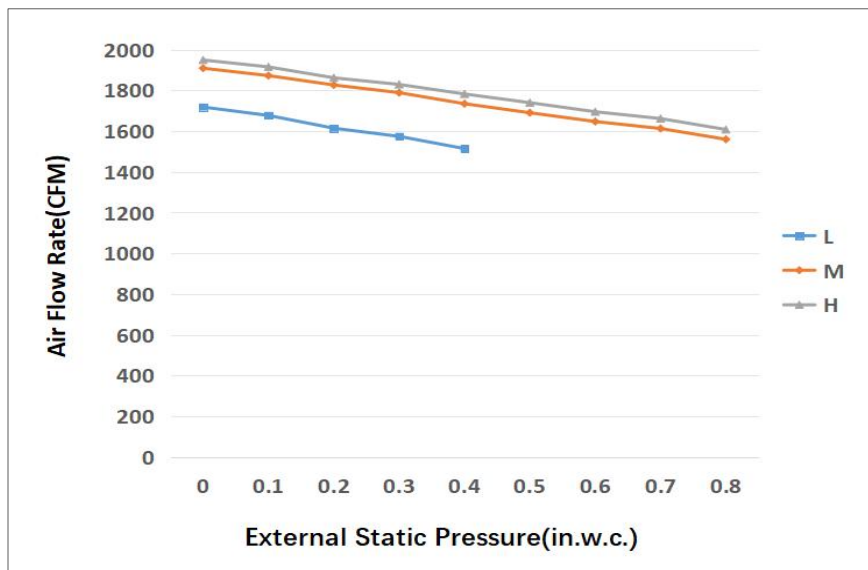


Dimensions \ Model		18K/24K		30K/36K		48K/60K	
		inch	mm	inch	mm	inch	mm
W	Model width	23-5/8	600	29-9/64	740	29-9/64	740
L	Model length	23-5/8	600	29-9/64	740	29-9/64	740
H	Model height	25	635	25	635	32-7/8	835
A	Liquid side valve height	2-31/64	63	2-31/64	63	2-31/64	63
B	Distance between two valves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



OD_Model1	ID_Model1	Furnace	Brand	ARIREF	ID_Type	Stage	Est_Airt_low	ACHP	IsHSVTC												
BAH21-60-15	LUC32-60-15		ComfortStar		A	High	1740	H													
OUTDOOR	IWB(F)	59					63					67					71				
DB	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	48.80	48.95	49.09	49.24	49.39	52.00	52.16	52.31	52.47	52.63	55.30	55.47	55.63	55.80	55.97	58.70	58.88	59.05	59.23	59.41
	Sensible ²	42.99	47.15	48.80	48.80	48.80	34.21	38.38	42.54	46.72	50.89	25.29	29.45	33.61	37.78	41.96	16.24	20.40	24.57	28.73	32.91
	kW	5.72	5.73	5.73	5.74	5.74	5.75	5.75	5.76	5.77	5.77	5.78	5.78	5.79	5.80	5.80	5.81	5.81	5.82	5.82	5.83
90	TC ¹	47.30	47.44	47.58	47.73	47.87	50.50	50.65	50.80	50.96	51.11	53.70	53.86	54.02	54.18	54.35	57.10	57.27	57.44	57.62	57.79
	Sensible ²	42.27	46.43	47.30	47.30	47.30	33.54	37.71	41.88	46.05	50.22	24.62	28.79	32.95	37.12	41.30	15.63	19.79	23.95	28.12	32.29
	kW	6.07	6.08	6.09	6.09	6.10	6.10	6.11	6.12	6.12	6.13	6.13	6.14	6.15	6.15	6.16	6.17	6.17	6.18	6.18	6.19
95	TC ¹	46.20	46.34	46.48	46.62	46.76	49.30	49.45	49.60	49.75	49.89	52.50	52.66	52.82	52.97	53.13	55.80	55.97	56.14	56.30	56.47
	Sensible ²	38.26	41.67	45.09	46.20	46.20	31.08	34.49	37.91	41.32	44.75	23.76	27.17	30.59	34.01	37.42	16.32	19.73	23.14	26.56	29.97
	kW	6.35	6.35	6.36	6.37	6.37	6.38	6.39	6.39	6.40	6.41	6.41	6.42	6.42	6.43	6.44	6.44	6.45	6.46	6.46	6.47
100	TC ¹	42.80	42.93	43.06	43.19	43.32	45.80	45.94	46.08	46.21	46.35	48.80	48.95	49.09	49.24	49.39	52.00	52.16	52.31	52.47	52.63
	Sensible ²	36.59	40.01	42.80	42.80	42.80	29.48	32.90	36.31	39.73	43.15	22.18	25.59	29.01	32.43	35.85	14.83	18.24	21.65	25.07	28.48
	kW	6.20	6.21	6.21	6.22	6.23	6.23	6.24	6.24	6.25	6.26	6.26	6.27	6.28	6.28	6.29	6.29	6.30	6.31	6.31	6.32
105	TC ¹	41.10	41.22	41.35	41.47	41.60	43.70	43.83	43.96	44.09	44.23	46.50	46.64	46.78	46.92	47.06	49.40	49.55	49.70	49.85	50.00
	Sensible ²	33.35	36.24	39.12	41.10	41.10	27.20	30.09	32.97	35.86	38.75	21.00	23.88	26.77	29.65	32.54	14.69	17.57	20.45	23.33	26.22
	kW	6.11	6.12	6.12	6.13	6.14	6.14	6.15	6.16	6.16	6.17	6.17	6.18	6.19	6.19	6.20	6.21	6.21	6.22	6.22	6.23
115	TC ¹	39.90	40.02	40.14	40.26	40.38	42.50	42.63	42.76	42.88	43.01	45.20	45.34	45.47	45.61	45.74	48.00	48.14	48.29	48.43	48.58
	Sensible ²	32.76	35.64	38.53	39.90	39.90	26.65	29.53	32.42	35.31	38.20	20.44	23.32	26.21	29.09	31.98	14.13	17.01	19.89	22.78	25.66
	kW	5.86	5.86	5.87	5.88																

Model	Heating		Outdoor conditions (DB)										
	Indoor Conditions		5°F -15.0°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
LUC32-60-15 BAH32-60-15 (208-230V)	60°F (15.6°C)	TC	38.27	41.72	45.17	47.26	49.35	51.44	53.53	55.62	57.82	59.91	62.00
		Input	5.13	5.03	4.93	4.84	4.74	4.65	4.56	4.47	4.38	4.29	4.21
	65°F (18.3°C)	TC	37.15	40.50	43.86	45.89	47.92	49.94	51.97	54.00	56.14	58.16	60.19
		Input	5.24	5.13	5.03	4.93	4.84	4.74	4.65	4.56	4.47	4.38	4.29
	70°F (21.1°C)	TC	36.07	39.33	42.58	44.55	46.52	48.49	50.46	52.43	54.50	56.47	58.44
		Input	5.34	5.24	5.14	5.03	4.94	4.84	4.74	4.65	4.56	4.47	4.38
	75°F (23.9°C)	TC	35.35	38.54	41.73	43.66	45.59	47.52	49.45	51.38	53.41	55.34	57.27
		Input	5.45	5.34	5.24	5.14	5.03	4.94	4.84	4.74	4.65	4.56	4.47