

SUBMITTAL DATA SHEET

Series Name: Star Pro Series
Model Number: BAH32-48-15 (30A) / LUC32-48-15 (304)

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)	1450/1100
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 172/191
	kg 78/86.5

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	8.4
EER2	8.7	COP	3.30

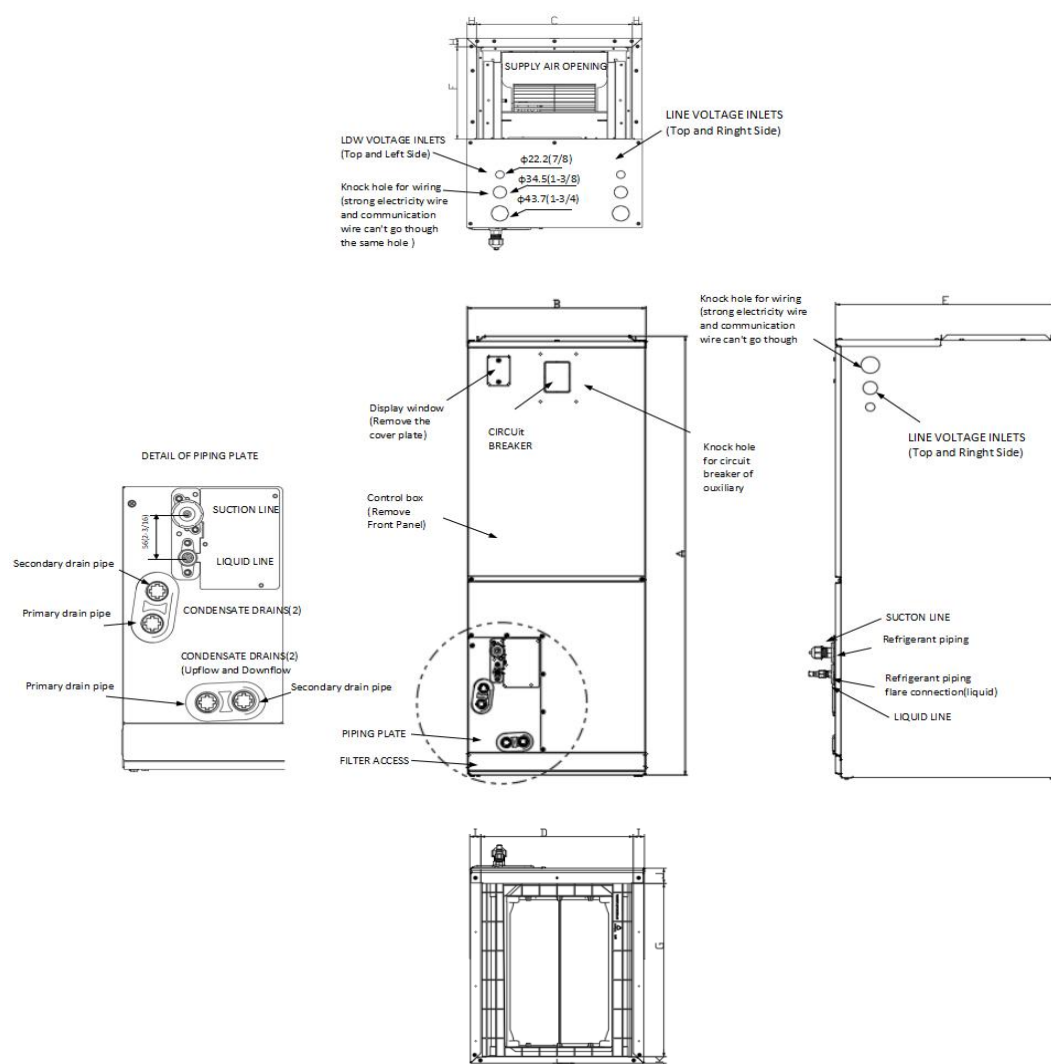
PERFORMANCE of Cooling	
Cooling (Btu/hr)	
Rated Capacity	48000
Min/Max Capacity	15000~49000
Moisture Removal(L/h)	4.8
Standard Operating Range(°F/°C)	5~131(-15~55)
Rated Cooling Conditions: Indoor: 80°F DB/67°F WB Outdoor: 95°F DB/75°F WB	

PERFORMANCE of Heating	
Heating (Btu/hr)	
1. @ 47°F Rated	48000
2. @ 47°F Min/Max Capacity	11000~52000
3. @ 17°F Rated	30000
4. @ 5°F Rated: Capacity / COP	25000/1.72
5. @ 5°F Max: Capacity	35000
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)	4.58
Indoor MOP	6
Outdoor Power Supply	208/230V,60Hz,1Ph
Outdoor MCA	37
Outdoor MOP	40
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	3.48
Indoor Fan Motor W	400
System Power Input @ Cooling (W)	5500(830~5700)
System Power Input @ Heating (W)	4320(830~5700)
MCA: Min. circuit amps (A)	MOCP: Max. over current protection (A)
RLA: Rated load amps (A)	W: Fan motor rated output (W)

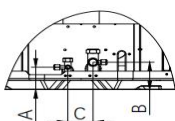
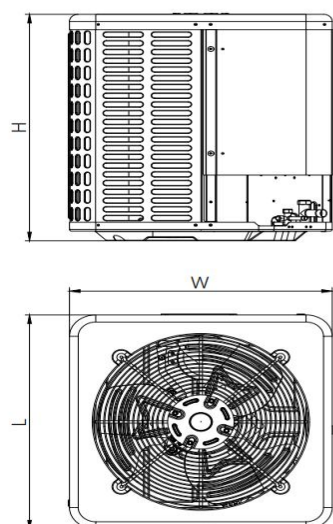
PIPING	
Throttle type(Indoor)	Piston
Throttle type(Outdoor)	Capillary
Liquid Size	9.52mm(3/8in)
Gas Size	19mm(3/4in)
Max. Piping Length(ft/m)	246(75)
Max. Height Difference(ft/m)	98.4(30)
Max. Pre-charged Length(ft/m)	24.6(7.5)
Refrigerant Pre-charged Amount(oz/kg)	119.93(3.4)
Additional Charge of Refrigerant((oz/ft)/(g/m))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

Indoor Unit Dimension



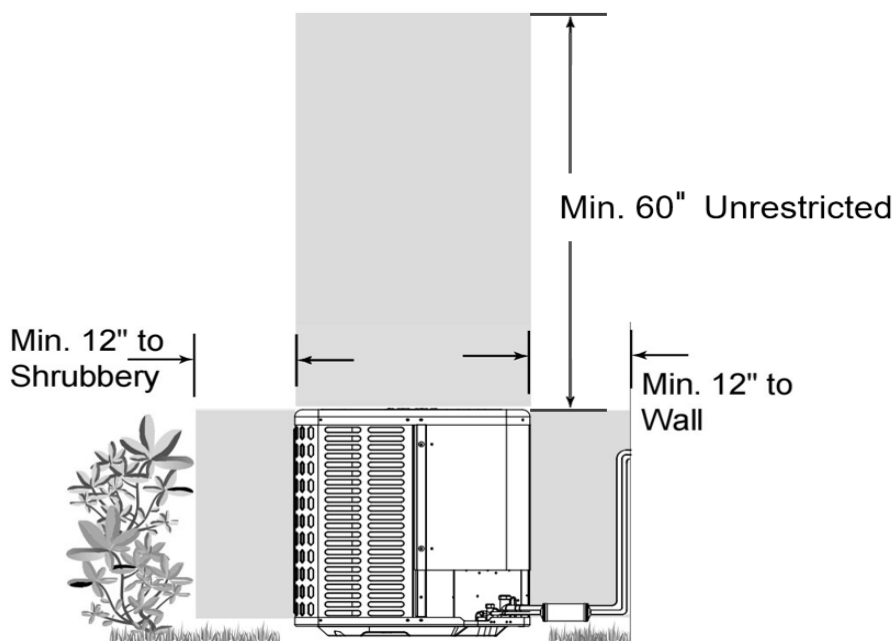
Dimensions		Model		18K/24K		30K/36K		48K/60K	
				inch	mm	inch	mm	inch	mm
A	Model Height			45-3/4	1162	49-49/64	1264	53-47/64	1365
B	Model width			17-41/64	448	21-9/64	537	24-39/64	625
C	Supply Air Opening width			15-5/8	397	19-9/64	486	22-19/32	574
D	Return Air Opening Width			15-25/64	391	18-47/64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

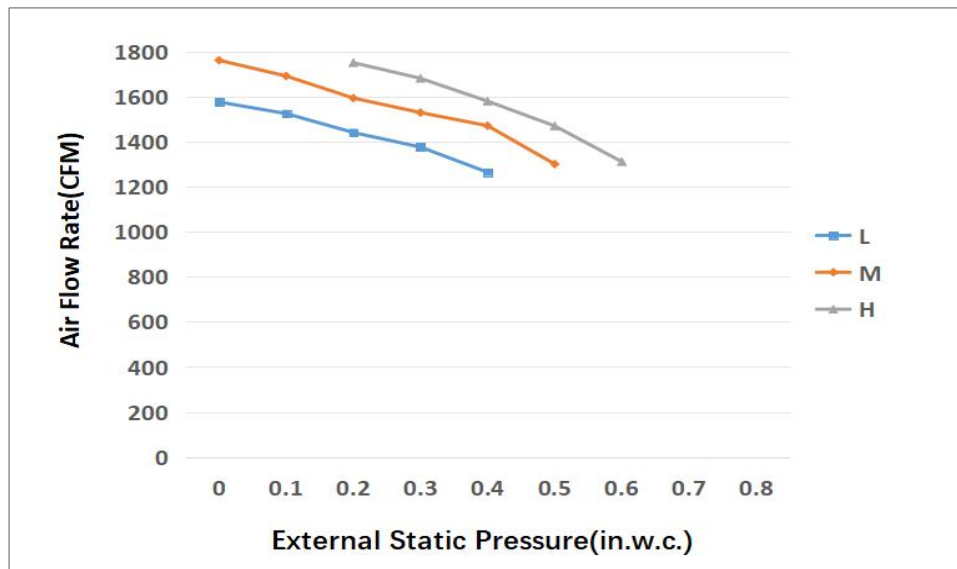


Dimensions \ Model		18K/24K		30K/36K		48K/60K	
		inch	mm	inch	mm	inch	mm
W	Model width	23-5/8	600	29-9/64	740	29-9/64	740
L	Model length	23-5/8	600	29-9/64	740	29-9/64	740
H	Model height	25	635	25	635	32-7/8	835
A	Liquid side valve height	2-31/64	63	2-31/64	63	2-31/64	63
B	Distance between two valves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

ComfortStar®

Air Conditioning & Heating Products

Performance Capacity Ratings

COOLING PERFORMANCE DATA

OD_Model1	ID_Model1	Furnace	Brand	ARIREF	ID_Type	Stage	Est_AirF _{low}	ACHP	IsHSVTC												
BAH32-48-15		LUC32-48-15				ComfortStar		A	High	1320		II									
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	45.40	45.54	45.67	45.81	45.95	48.40	48.55	48.69	48.84	48.98	51.50	51.65	51.81	51.96	52.12	54.80	54.96	55.13	55.29	55.46
	Sensible ²	37.76	41.16	44.55	45.40	45.40	30.61	34.00	37.39	40.79	44.19	23.33	26.72	30.11	33.50	36.90	15.96	19.35	22.74	26.13	29.53
	kW	5.14	5.15	5.15	5.16	5.16	5.16	5.17	5.17	5.18	5.18	5.19	5.20	5.20	5.21	5.21	5.22	5.23	5.23	5.24	5.24
90	TC ¹	46.87	47.01	47.15	47.29	47.44	47.58	47.72	47.86	48.01	48.15	48.30	48.44	48.59	48.74	48.88	49.03	49.18	49.32	49.47	49.62
	Sensible ²	27.32	30.70	34.49	38.75	43.54	24.61	27.65	31.07	34.91	39.23	22.17	24.91	27.99	31.45	35.34	29.33	30.33	31.33	32.33	33.33
	kW	5.19	5.20	5.20	5.21	5.21	5.22	5.22	5.23	5.23	5.24	5.24	5.25	5.25	5.26	5.26	5.27	5.27	5.28	5.28	5.29
95	TC ¹	45.81	45.95	46.09	46.23	46.37	46.51	46.65	46.79	46.93	47.07	47.21	47.35	47.49	47.64	47.78	47.92	48.07	48.21	48.36	48.50
	Sensible ²	27.49	32.05	36.62	33.94	38.14	26.26	30.61	34.98	32.42	36.43	25.08	29.24	33.41	30.96	34.79	16.05	20.21	24.37	28.54	32.71
	kW	5.35	5.36	5.37	5.37	5.38	5.38	5.39	5.39	5.40	5.40	5.41	5.41	5.42	5.42	5.43	5.45	5.46	5.48	5.50	5.51
100	TC ¹	38.70	38.82	38.93	39.05	39.17	41.20	41.32	41.45	41.57	41.70	43.90	44.03	44.16	44.30	44.43	46.60	46.74	46.88	47.02	47.16
	Sensible ²	32.16	35.05	37.94	38.70	38.70	26.05	28.94	31.82	34.71	37.60	19.88	22.77	25.65	28.54	31.43	13.57	16.45	19.34	22.22	25.11
	kW	5.29	5.29	5.30	5.30	5.31	5.32	5.32	5.33	5.33	5.34	5.34	5.35	5.35	5.36	5.36	5.37	5.37	5.38	5.38	5.39
105	TC ¹	37.40	37.51	37.62	37.74	37.85	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
	Sensible ²	31.53	34.41	37.30	37.40	37.40	25.46	28.34	31.23	34.12	37.01	19.29	22.17	25.06	27.95	30.84	13.02	15.90	18.79	21.67	24.56
	kW	5.17	5.18	5.18	5.19	5.19	5.20	5.20	5.21	5.21	5.22	5.22	5.23	5.23	5.24	5.24	5.25	5.25	5.26	5.26	5.27
115	TC ¹	34.70	34.80	34.91	35.01	35.12	37.10	37.21	37.32	37.43	37.55	39.50	39.62	39.74	39.86	39.98	42.10	42.23	42.35	42.48	42.61
	Sensible ²	30.22	33.10	34.70	34.70	34.70	24.19	27.07	29.96	32.85	35.75	18.02	20.90	23.79	26.68	29.57	11.81	14.69	17.58	20.47	23.36
	kW	5.09	5.10	5.10	5.11	5.11	5.12	5.12	5.13	5.13	5.14	5.14	5.15	5.15	5.16	5.16	5.17	5.17	5.18	5.18	5.19

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
LUC32-48-15 BAH32-48-15 (208-230V)	60°F (15.6°C)	TC	36.99	40.77	44.54	45.74	46.93	48.13	49.33	50.53	51.72	52.92	54.12
		Input	5.20	5.05	4.91	4.76	4.62	4.49	4.36	4.23	4.15	4.25	4.15
	65°F (18.3°C)	TC	35.92	39.58	43.24	44.40	45.57	46.73	47.90	49.06	50.21	51.38	52.54
		Input	5.31	5.16	5.01	4.86	4.72	4.58	4.45	4.32	4.23	4.34	4.23
	70°F (21.1°C)	TC	34.87	38.43	41.98	43.11	44.24	45.37	46.50	47.63	48.75	49.88	51.01
		Input	5.42	5.26	5.11	4.96	4.81	4.67	4.54	4.41	4.32	4.43	4.32
	75°F (23.9°C)	TC	33.82	37.27	40.72	41.82	42.91	44.01	45.11	46.20	47.29	48.38	49.48
		Input	5.53	5.37	5.21	5.06	4.91	4.77	4.63	4.49	4.41	4.52	4.41