

SUBMITTAL DATA SHEET

Series Name: Star Pro Series
Model Number: BAH32-36-15 (309) / LUC32-36-15 (303)

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)	1100/600
Indoor Noise Level (High/Low) (dBA)	50/42.5
Dimension (W×D×H)	inch 21-1/32×21-1/32×49-7/32
	mm 534×534×1245
Package (W×D×H)	inch 24-13/32×26-37/64×50-13/64
	mm 620×675×1275
Net/Gross Weight	lbs 142/157
	kg 64.5/71

OUTDOOR SPECIFICATION	
Compressor Type	TWIN-ROTARY
Compressor Model	KTM240D57UMT
Refrigerant	R32
Refrigerant Oil Charge(mL)	670
Refrigerant Oil	VG74
Outdoor Air Flow (Max) (CFM)	2800.0
Outdoor Noise Level (dBA)	59
Dimension (W×D×H)	inch 29-9/64×29-9/64×25
	mm 740×740×635
Package (W×D×H)	inch 30-5/16×30-5/16×26-3/16
	mm 770×770×665
Net/Gross Weight	lbs 140/148
	kg 63.5/67

EFFICIENCY			
Cooling		Heating	
SEER2	15.0	HSPF2-4	8.0
EER2	9.8	COP	3.40

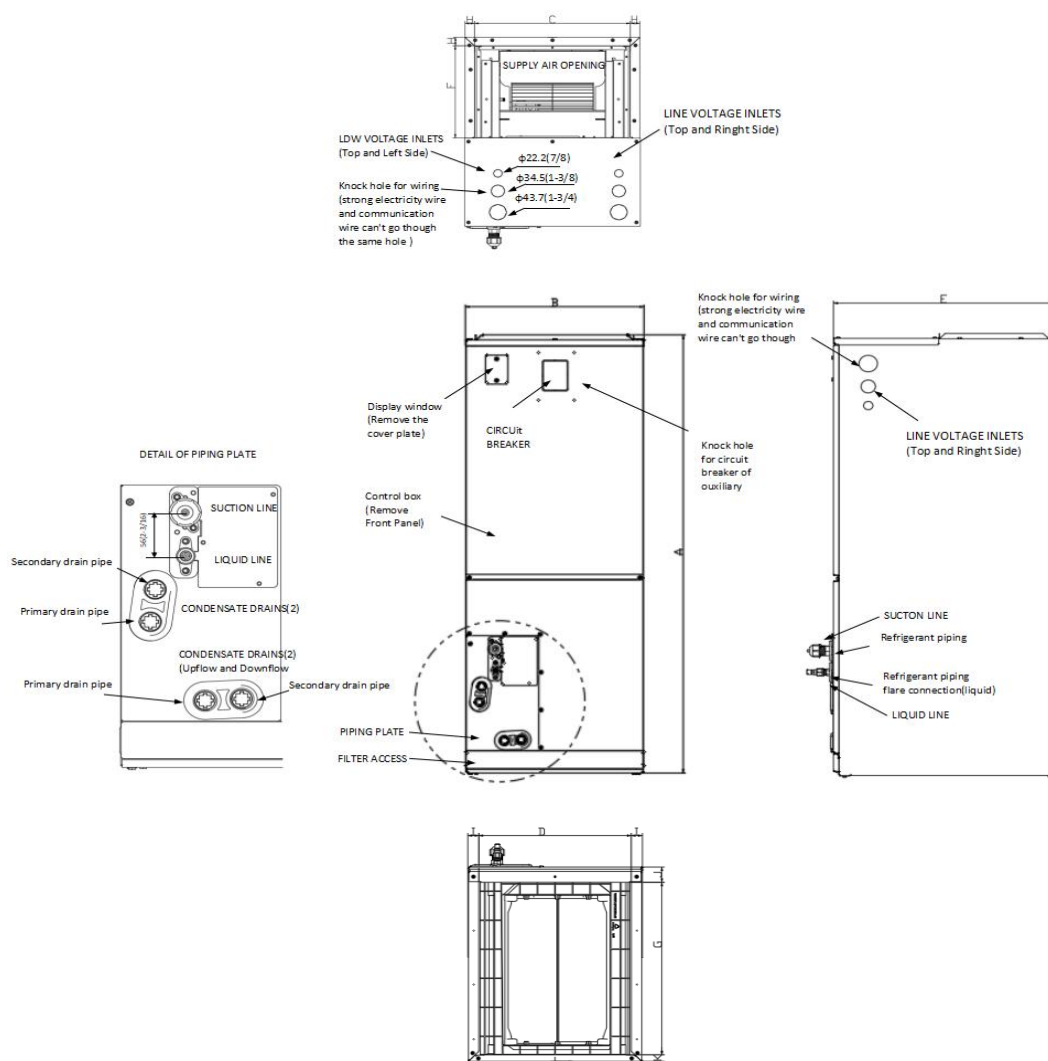
PERFORMANCE of Cooling	
Cooling (Btu/hr)	
Rated Capacity	34200
Min/Max Capacity	13000~38000
Moisture Removal(L/h)	3.4
Standard Operating Range(°F/°C)	5~131(-15~55)
Rated Cooling Conditions: Indoor: 80°F DB/67°F WB Outdoor: 95°F DB/75°F WB	

PERFORMANCE of Heating	
Heating (Btu/hr)	
1. @ 47°F Rated	36000
2. @ 47°F Min/Max Capacity	11000~39000
3. @ 17°F Rated	17500
4. @ 5°F Rated: Capacity / COP	23000/1.8
5. @ 5°F Max: Capacity	26000
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)	2.9
Indoor MOP	3
Outdoor Power Supply	208/230V,60Hz,1Ph
Outdoor MCA	25
Outdoor MOP	30
Communication Wiring	AWG 25×3 Shielded
Compressor RLA	9.45
Outdoor Fan Motor RLA	2.3
Outdoor Fan Motor W	200
Indoor Fan Motor RLA	2.23
Indoor Fan Motor W	220
System Power Input @ Cooling (W)	3500(460~3600)
System Power Input @ Heating (W)	3200(600~3600)
MCA: Min. circuit amps (A)	MOCP: Max. over current protection (A)
RLA: Rated load amps (A)	W: Fan motor rated output (W)

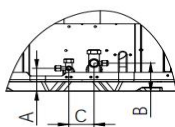
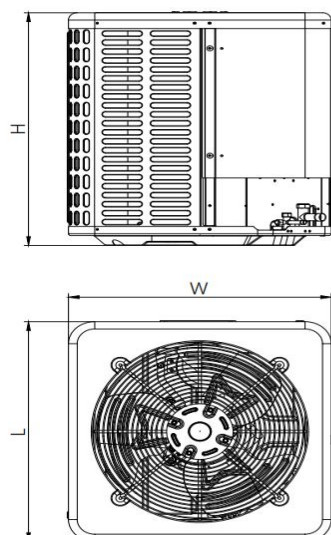
PIPING	
Throttle type(Indoor)	Piston
Throttle type(Outdoor)	Capillary
Liquid Size	9.52mm(3/8in)
Gas Size	19mm(3/4in)
Max. Piping Length(ft/m)	246(75)
Max. Height Difference(ft/m)	98.4(30)
Max. Pre-charged Length(ft/m)	24.6(7.5)
Refrigerant Pre-charged Amount(oz/kg)	102.29(2.9)
Additional Charge of Refrigerant((oz/ft)/(g/m))	0.52(48)
Connection Method	Flared

Indoor Unit Dimension



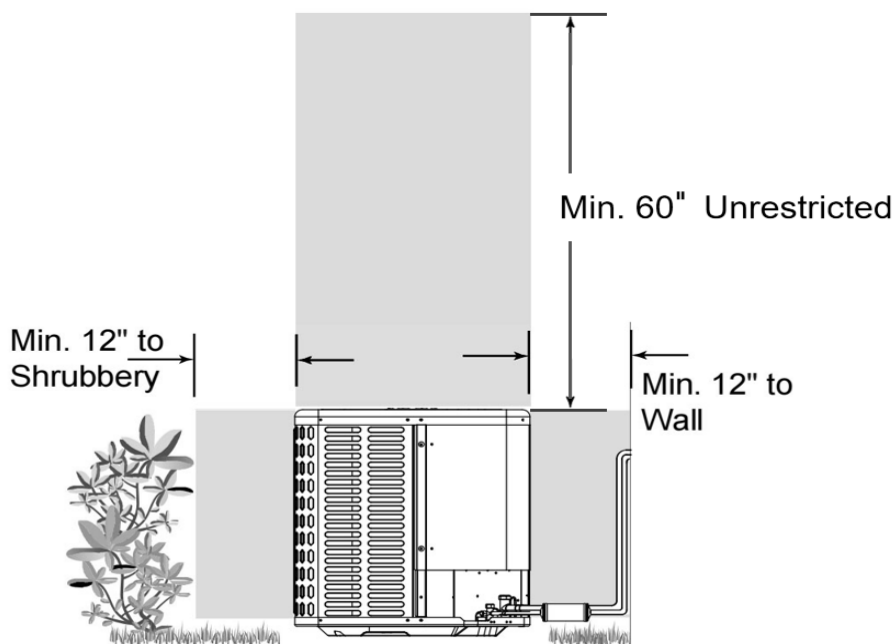
Dimensions		Model	18K/24K		30K/36K		48K/60K	
			inch	mm	inch	mm	inch	mm
A	Model Height		45-3/4	1162	49-49/64	1264	53-47/64	1365
B	Model width		17-41/64	448	21-9/64	537	24-39/64	625
C	Supply Air Opening width		15-5/8	397	19-9/64	486	22-19/32	574
D	Return Air Opening Width		15-25/64	391	18-47/64	476	22-23/64	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

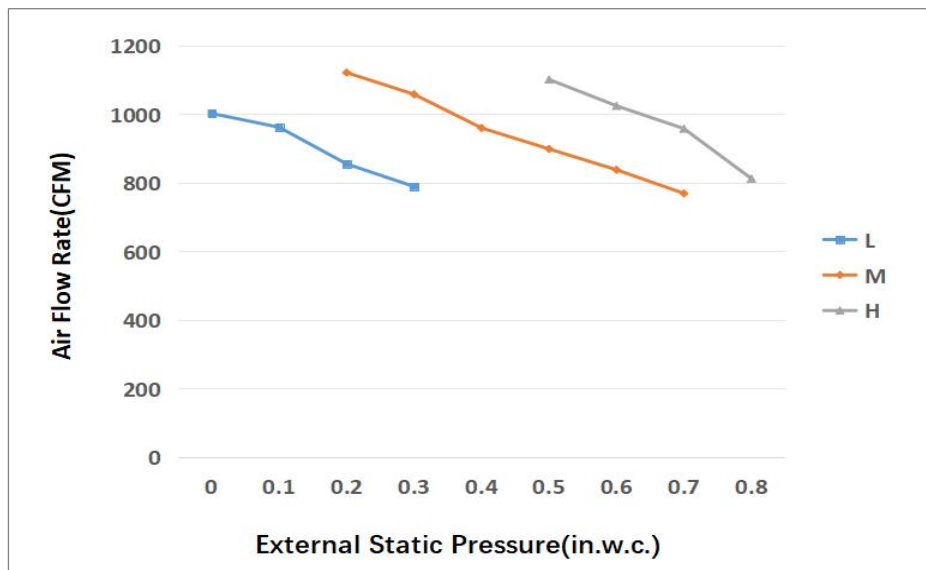


Dimensions \ Model		18K/24K		30K/36K		48K/60K	
		inch	mm	inch	mm	inch	mm
W	Model width	23-5/8	600	29-9/64	740	29-9/64	740
L	Model length	23-5/8	600	29-9/64	740	29-9/64	740
H	Model height	25	635	25	635	32-7/8	835
A	Liquid side valve height	2-31/64	63	2-31/64	63	2-31/64	63
B	Distance between two valves	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												
BAH32-36-15	LUC32-36-15		ComfortStar		A	High	1100	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	32.90	33.00	33.10	33.20	33.30	35.00	35.11	35.21	35.32	35.42	37.20	37.31	37.42	37.54	37.65	39.50	39.62	39.74	39.86	39.98
	Sensible ²	27.41	29.87	32.34	32.90	32.90	22.17	24.64	27.10	29.57	32.05	16.86	19.32	21.79	24.26	26.73	11.47	13.93	16.40	18.87	21.34
	kW	2.70	2.70	2.71	2.71	2.71	2.71	2.71	2.72	2.72	2.72	2.71	2.71	2.72	2.72	2.72	2.72	2.72	2.73	2.73	2.73
90	TC ¹	32.00	32.10	32.19	32.29	32.39	34.10	34.20	34.30	34.41	34.51	36.20	36.31	36.42	36.53	36.64	38.40	38.52	38.63	38.75	38.86
	Sensible ²	26.96	29.43	31.90	32.00	32.00	21.76	24.23	26.70	29.17	31.64	16.42	18.89	21.36	23.83	26.30	11.04	13.50	15.97	18.43	20.90
	kW	2.84	2.84	2.85	2.85	2.85	2.85	2.85	2.86	2.86	2.86	2.86	2.86	2.87	2.87	2.87	2.87	2.87	2.88	2.88	2.88
95	TC ¹	31.10	31.19	31.29	31.38	31.47	33.10	33.20	33.30	33.40	33.50	35.20	35.31	35.41	35.52	35.62	37.40	37.51	37.62	37.74	37.85
	Sensible ²	26.53	28.99	31.10	31.10	31.10	21.31	23.77	26.24	28.71	31.19	16.00	18.47	20.93	23.40	25.88	10.63	13.11	15.58	18.04	20.52
	kW	2.99	2.99	3.00	3.00	3.00	3.00	3.00	3.01	3.01	3.01	3.01	3.01	3.02	3.02	3.02	3.02	3.02	3.03	3.03	3.03
100	TC ¹	30.10	30.19	30.28	30.37	30.46	32.10	32.20	32.29	32.39	32.49	34.20	34.30	34.41	34.51	34.61	36.30	36.41	36.52	36.63	36.74
	Sensible ²	26.04	28.51	30.10	30.10	30.10	20.85	23.32	25.79	28.26	30.73	15.58	18.05	20.52	22.99	25.46	10.22	12.68	15.15	17.61	20.08
	kW	3.14	3.14	3.15	3.15	3.15	3.15	3.15	3.16	3.16	3.16	3.17	3.17	3.18	3.18	3.18	3.18	3.18	3.19	3.19	3.19
105	TC ¹	29.10	29.19	29.27	29.36	29.45	31.10	31.19	31.29	31.38	31.47	33.10	33.20	33.30	33.40	33.50	35.20	35.31	35.41	35.52	35.62
	Sensible ²	25.56	28.03	29.10	29.10	29.10	20.40	22.87	25.34	27.81	30.28	15.12	17.59	20.06	22.53	25.00	9.79	12.25	14.72	17.19	19.66
	kW	3.10	3.10	3.11	3.11	3.11	3.12	3.12	3.12	3.13	3.13	3.13	3.13	3.14	3.14	3.14	3.15	3.15	3.15	3.16	3.16
115	TC ¹	27.00	27.08	27.16	27.24	27.33	28.90	28.99	29.07	29.16	29.25	30.80	30.89	30.99	31.08	31.17	32.80	32.90	33.00	33.10	33.20
	Sensible ²	24.56	27.00	27.00	27.00	27.00	19.42	21.89	24.36	26.83	28.90	14.17	16.64	19.11	21.58	24.05	8.86	11.33	13.80	16.27	18.74
	kW	3.03	3.03	3.04	3.04	3.04	3.05	3.05	3.05	3.06	3.06	3.06	3.06	3.07	3.07	3.07	3.07	3.08	3.08	3.08	3.09

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
LUC32-36-15 BAH32-36-15 (208-230V)	60°F	TC	27.04	29.37	31.69	32.83	33.98	35.13	36.27	37.42	38.57	39.72	40.87
	(15.6°C)	Input	2.93	2.89	2.86	2.89	2.93	2.96	2.98	2.96	3.03	3.09	3.15
	65°F	TC	26.25	28.51	30.77	31.88	32.99	34.10	35.22	36.33	37.45	38.56	39.68
	(18.3°C)	Input	2.99	2.95	2.92	2.95	2.99	3.02	3.04	3.02	3.09	3.15	3.21
	70°F	TC	25.49	27.68	29.87	30.95	32.03	33.11	34.19	35.27	36.36	37.44	38.52
	(21.1°C)	Input	3.05	3.01	2.98	3.01	3.05	3.08	3.10	3.08	3.15	3.21	3.28
	75°F	TC	24.73	26.85	28.97	30.02	31.07	32.12	33.16	34.21	35.27	36.32	37.36
	(23.9°C)	Input	3.11	3.07	3.04	3.07	3.11	3.14	3.16	3.14	3.21	3.28	3.34