



BMKH2422 Specifications and Certifications



Models

BMKH2422/O	24000 BTU 21.5 SEER2 208/230V Minisplit Heat Pump Condenser
BMKH2422/I	24000 BTU 21.5 SEER2 208/230V Minisplit Heat Pump Air Handler
BMKH2422	24000 BTU 21.5 SEER2 208/230V Minisplit Heat Pump System
BMKH2422 KIT15	24000 BTU 21.5 SEER2 208/230V Minisplit Heat Pump W/ 15 Ft Installation Kit
BMKH2422 KIT25	24000 BTU 21.5 SEER2 208/230V Minisplit Heat Pump W/ 25 Ft Installation Kit

What's in the Box

Mini-Split System

BMKH2422

24000 BTU 21.5 SEER2 208/230V Minisplit Heat Pump Condenser

24000 BTU 21.5 SEER2 208/230V Minisplit Heat Pump Air Handler

Remote Controller



Mini-Split System with Installation Kit

**BMKH2422
KIT15**

24000 BTU 21.5 SEER2 208/230V Minisplit Heat Pump Condenser

24000 BTU 21.5 SEER2 208/230V Minisplit Heat Pump Air Handler

15 Foot 3/8 LL 5/8 SL Ductless Mini-Split Line Set

25 Foot Stranded Ductless Mini-Split Communication Wire

2.5" Wall Sleeve for SpeediChannel™ Line Set Covers

1/2 x 48 Inches, #10 Gauge Electrical Whip

Nylog Blue Gasket, Flare and Thread Sealant

Safety Non-Fused Electrical Disconnect

5/8in Inner Diameter Drain Hose, 20ft Length

Adapter 5/16" x 1/4" for Ductless Mini-Split Systems

Remote controller



**BMKH2422
KIT25**

24000 BTU 21.5 SEER2 208/230V Minisplit Heat Pump Condenser

24000 BTU 21.5 SEER2 208/230V Minisplit Heat Pump Air Handler

25 Foot 3/8 LL 5/8 SL Ductless Mini-Split Line Set

35 Foot Stranded Ductless Mini-Split Communication Wire

2.5" Wall Sleeve for SpeediChannel™ Line Set Covers

1/2 x 48 Inches, #10 Gauge Electrical Whip

Nylog Blue Gasket, Flare and Thread Sealant

Safety Non-Fused Electrical Disconnect

5/8in Inner Diameter Drain Hose, 20ft Length

Adapter 5/16" x 1/4" for Ductless Mini-Split Systems

Remote controller



SUBMITTAL DATA SHEET

Wall Mounted Heat Pump System

Location: _____
 Engineer: _____
 Submitted to: _____
 Submitted by: _____
 Reference: _____

Approval: _____
 Date: _____
 Construction: _____
 Unit #: _____
 Drawing #: _____

Set Model
 15 Ft Kit Model
25 Ft Kit Model

BMKH2422
 BMKH2422 KIT15
 BMKH2422 KIT25

Certified

AHRI



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SYSTEM PERFORMANCE DATA

Power supply

Normal Operational Voltage (V, Ph, Hz) 208/230V, 1Ph, 60Hz
 Voltage Range (V) 187-253

Electrical

Minimum circuit ampacity (Outdoor) (A) 22.0
 Max. fuse (Outdoor) (A) 35.0
 Connection wiring 14AWG*4

Cooling

Capacity (Btu/h) 22000(6800~30700)
 Power Input (W) 1700(450~3700)
 Current (A) 8
 SEER2 (Btu/W) 21.5
 EER2 (Btu/W) 13.0

Heating

Capacity (Btu/h) 24000(6800~32000)
 Power Input (W) 2000(380~3700)
 Current (A) 9.37
 HSPF2-4 (Btu/W) 9.5

COP W/W 3.50
 Heat at 17F(AHRI Rating) (Btu/h) 15500
 Heat at 5F(AHRI Rating) (Btu/h) 24000
 COP at 5F(AHRI Rating) W/W 1.90

REFRIGERANT PIPE DATA

Throttle type Indoor unit N/A
 Outdoor unit EXV

Refrigerant Type R410A
 Refrigerant charge oz 81.10
 (ft) 25.0
 Refrigerant precharge
 Additional charge for each ft (oz/ft) 0.50

Liquid side/ Gas side(indoor) (inch) 1/4"/5/8"

Liquid side/ Gas side(outdoor) (inch) 1/4"/5/8"

Max. pipe length (ft) 164.0

Max. difference in level (ft) 98.0

Connection method Flared

Remote Control Temp Range(cooling) (Deg. °F) 61 ~ 86

Remote Control Temp Range(heating) (Deg. °F) 61 ~ 86

Outdoor(cooling) (Deg. °F) 0~129

Outdoor(heating) (Deg. °F) -22 ~ 75

INDOOR UNIT DATA

Indoor fan motor

Model MP35CJ
 Qty 1
 Input (W) -
 Output (W) 70.0
 RLA (A) 0.38

Air flow & Noise level

Indoor air flow (Hi/Med/Lo) (No duct) (CFM) 823.9/765.05/706.2/647.35/588.5/500.225/383
 Indoor noise level (Hi/Med/Lo) [dB(A)] 54/49/46/43/40/37/34

Dehumidification (L/H) 2

Indoor unit

Dimension (WxDxH) (inch) 43.346×12.874×9.803

Packing(WxDxH) (inch) 45.945×15.945×13.937

Net/Gross weight (lbs.) 35.3/43

OUTDOOR UNIT DATA

Compressor

Type ROTARY
 Model QXAT-D20zF030
 Brand GREE
 Input (W) 2443
 Rated current (RLA) (A) 16
 Refrigerant oil RB68EP

Outdoor fan motor

Model QXAT-D20zF030
 Qty 1
 Input (W) -
 Output (W) 90
 RLA (A) 0.65

Air flow & Noise level

Outdoor noise level [dB(A)] 59.0

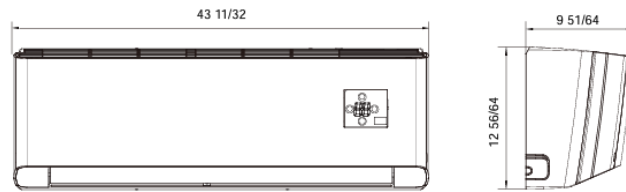
Outdoor unit

Dimension (WxDxH) (inch) 38.583×31.102×16.811

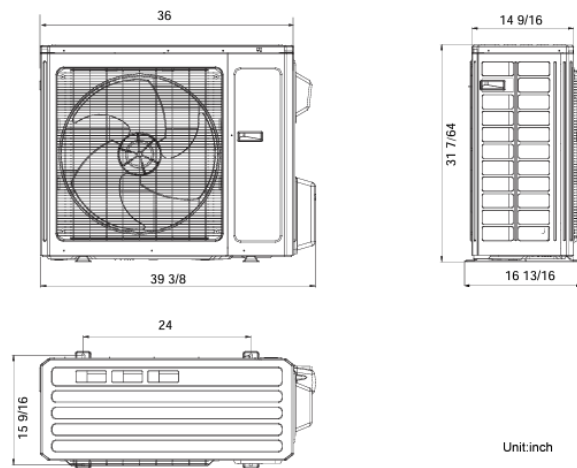
Packing (WxDxH) (inch) 42.638×19.213×33.661

Net/ Gross weight (lbs.) 147.7/158.8

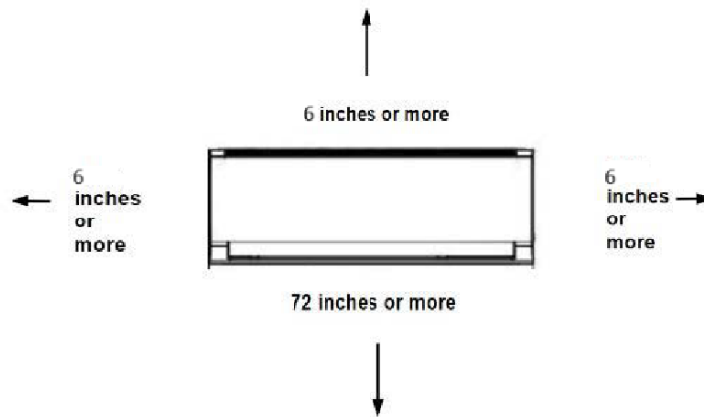
Indoor unit dimension



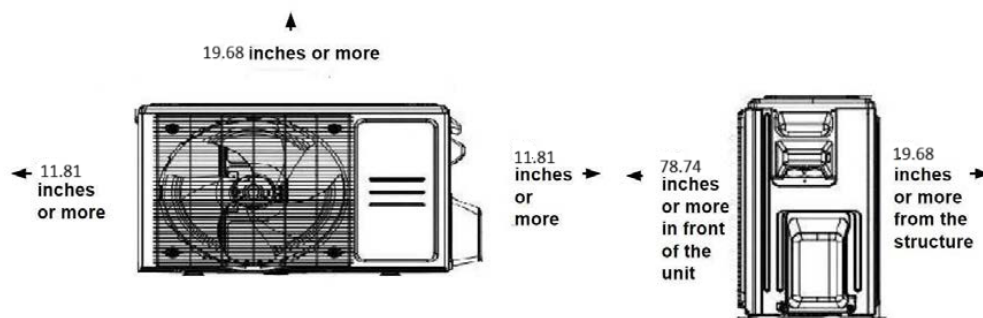
Outdoor unit dimension



Indoor unit clearance (Inches)



Outdoor unit clearance (Inches)



COOLING PERFORMANCE DATA

YS Model	Cooling		Outdoor conditions (DB)																											
	Indoor DB		0°F	5°F	10°F	15°F	20°F	25°F	30°F	35°F	40°F	45°F	50°F	55°F	60°F	65°F	70°F	75°F	80°F	85°F	90°F	95°F	100°F	105°F	110°F	115°F	120°F	122°F	125°F	129°F
BMKH2422/I BMKH2422/O Wall mounted (208-230V)	70°F	TC	19963	20270	20731	21191	21498	21806	22573	23341	23802	24262	25030	25798	26566	27334	28562	29791	30251	30712	29791	28869	28101	27334	26873	26412	25337	24262	23495	22727
		Input	2104	2148	2191	2235	2278	2322	2365	2409	2453	2496	2540	2583	2627	2670	2714	2757	2801	2844	2873	2902	2975	3048	3120	3193	3204	3216	3232	3248
	75°F	TC	21191	21498	21959	22420	22727	23034	23802	24570	25030	25491	26259	27027	27794	28562	29791	31019	31480	31940	31019	30098	29330	28562	28101	27641	26566	25491	24723	23955
		Input	2215	2261	2307	2353	2398	2444	2490	2536	2582	2627	2673	2719	2765	2811	2857	2902	2948	2994	3025	3055	3132	3208	3284	3361	3437	3513	3526	3538
	80°F	TC	21806	22113	22573	23034	23341	23648	24416	25184	25645	26105	26873	27641	28409	29176	30405	31633	32094	32555	31633	30712	29944	29176	28716	28255	27180	26105	25337	24570
		Input	2332	2380	2428	2476	2525	2575	2621	2669	2718	2766	2814	2862	2910	2959	3007	3055	3103	3152	3184	3216	3296	3377	3457	3538	3618	3698	3779	3859

HEATING PERFORMANCE DATA

YS Model	Heating		Outdoor conditions (DB)																							
	Indoor Conditions DB		-22°F	-20°F	-15°F	-10°F	-5°F	0°F	5°F	10°F	15°F	17°F	20°F	25°F	30°F	35°F	40°F	45°F	47°F	50°F	55°F	60°F	65°F	70°F	75°F	
BMKH2422/I BMKH2422/O Wall mounted (208-230V)	70°F	TC	18339	18839	19339	20506	21674	22674	23674	25008	25508	26008	27342	28342	28842	29343	31677	32677	33344	33010	32677	32344	31677	31343	31010	
		Input	2724	2751	2779	2808	2836	2894	2953	3013	3044	3075	3137	3201	3234	3267	3333	3401	3471	3488	3506	3540	3401	3384	3367	
	75°F	TC	17672	18172	18673	19840	21007	22007	23007	24341	25508	26675	26675	27675	28176	28676	31010	32010	32677	32344	32010	31677	31010	30676	30343	
		Input	2778	2806	2835	2864	2893	2952	3012	3073	3105	3136	3200	3265	3299	3332	3400	3469	3540	3558	3576	3611	3469	3452	3434	
	80°F	TC	17005	17506	18006	19173	20340	21340	22341	23674	24841	26008	26008	27009	27509	28009	30343	31343	32010	31677	31343	31010	30343	30010	29676	
		Input	2834	2863	2892	2921	2951	3011	3072	3135	3167	3199	3264	3331	3365	3399	3468	3539	3612	3629	3647	3683	3539	3521	3503	

LEGEND
DB --- Dry Bulb
TC --- Total Net Capacity
Input --- Total Power



Certificate of Product Ratings

AHRI Certified Reference Number : 205968031 Date : 06-29-2023 Model Status : Active
 AHRI Type : HRCU-A-CB-O (Mini-Split Heat Pump, with Remote Outdoor Unit Air-Source, Free Delivery)
 Series Name : Sapphire
 Outdoor Unit Brand Name : BLUERIDGE
 Outdoor Unit Model Number : BMKH2422/O
 Indoor Type : Mini-Splits (Non-Ducted)
 Indoor Model Number(s) : BMKH2422/I

Rated as follows in accordance with the latest edition of AHRI 210/240 - 2017 with Addendum 1, Performance Rating of Unitary Air-Conditioning & Air-Source Heat Pump Equipment and subject to rating accuracy by AHRI-sponsored, independent, third party testing:

Cooling Capacity (A2) - Single or High Stage (95F), btuh : 22000
 SEER : 21.50
 EER (A2) - Single or High Stage (95F) : 13.00
 Heating Capacity (H12) - Single or High Stage (47F) : 24000
 HSPF (Region IV) : 12.00

Rated as follows in accordance with the latest edition of AHRI 210/240 – 2023, Performance Rating of Unitary Air-Conditioning & Air-Source Heat Pump Equipment and subject to rating accuracy by AHRI-sponsored, independent, third party testing:

Cooling Capacity (A_{Full}) – Single or High Stage (95F), btuh : 22000
 SEER2 : 21.50
 EER2 (A_{Full}) – Single or High Stage (95F) : 13.00
 Heating Capacity (H1_{Full}) – Single or High Stage (47F), btuh : 24000
 HSPF2 (Region IV) : 9.50

Sold in? : USA, Canada

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†"Active" Model Status are those that an AHRI Certification Program Participant is currently producing AND selling or offering for sale; OR new models that are being marketed but are not yet being produced. "Production Stopped" Model Status are those that an AHRI Certification Program Participant is no longer producing BUT is still selling or offering for sale.

Ratings that are accompanied by WAS indicate an involuntary re-rate. The new published rating is shown along with the previous (i.e. WAS) rating.

The Department of Energy has published updated energy efficiency metrics for central air conditioners and heat pumps. This publication reflects both the 1987 metric (SEER) and the 2023 metric (SEER2). Efficiency requirements are published at 10 C.F.R. 430.32(c). Please refer to www.AHRInet.org for more information about updated energy efficiency metrics.

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CERTIFICATE NO.:

133325602977409808



ENERGY STAR CERTIFIED

Heat Pumps (Mini-Split)

: BMKH2422/O

Specifications

ENERGY STAR Unique ID:	2415099
Outdoor Unit Brand Name:	BLUERIDGE
Series Name:	Saphire
Outdoor Unit Model Number:	BMKH2422/O
Indoor Unit Model Number:	BMKH2422/I
Indoor Unit Brand Name:	BLUERIDGE
SEER2 (Btu/Wh):	21.5
Product Type:	HP - Mini or Multi Split
EER2 (Btu/Wh):	13.0
HSPF2 (Btu/Wh):	9.5
COP at 5°F:	1.9
Cooling Capacity (Btu/h):	22000
Heating Capacity at 47°F (Btu/h):	24000
Heating Capacity at 5°F (Btu/h):	24000
Cold Climate:	Yes
Connected Capable:	No
Meets Peak Cooling Requirements:	No
Tax Credit Eligible:	Yes
Refrigerant with GWP:	R-410A (GWP:2088)
ENERGY STAR Most Efficient:	Yes

Captured On:
04/01/2024