BOREAL
elevate your comfort

R32 AIRMAX+

SUBMITTAL DATA

ARX12HPJ1R32IA / ARX18HPJ1R32OA
12000 BTU/H Unitary Heat Pump Split System

Job Name

Purchaser

Submmited to

Unit Designation

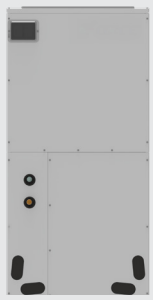
Location

Date

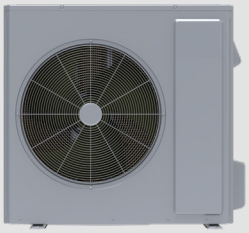
Engineer

For

Schedule No.



ARX12HPJ1R32IA



ARX18HPJ1R32OA

WK-010WC1

GENERAL FEATURES

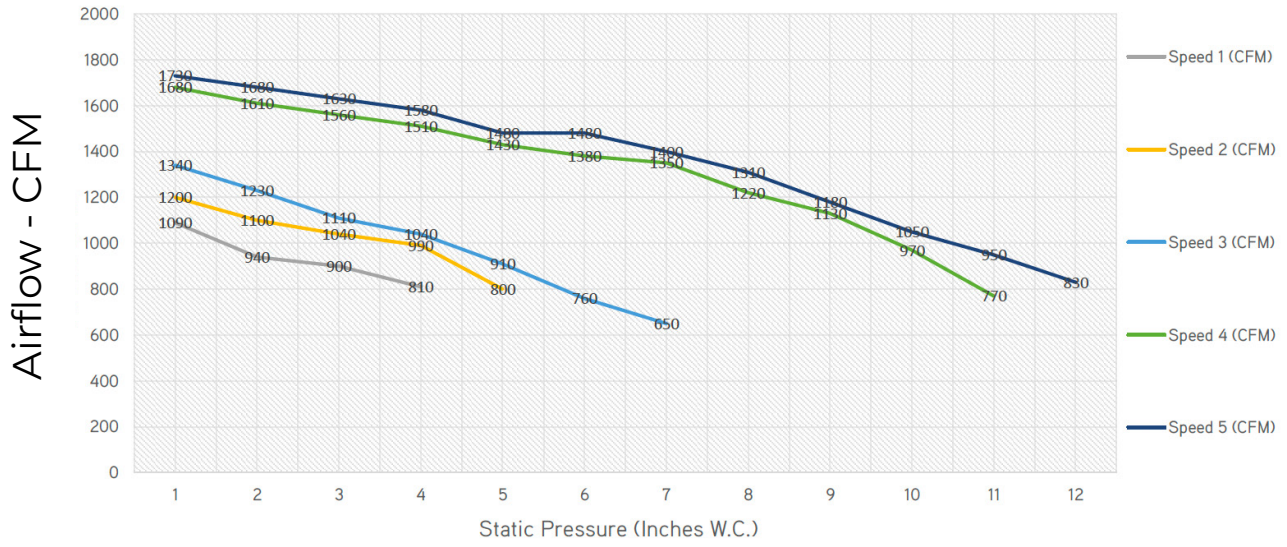
- AHRI Certificate:
- High Efficiency DC Inverter Technology
- 24VAC Thermostat Compatible
- Zero Lot Line Design
- Match with BOREAL or Competitive Indoor Unit
- New R32 Refrigerant
- WK-010WC1 Programmable Wired Controller Included
- Designed for New Construction or Replacement Market
- Low Ambient Cooling down to -15°C (5°F)
- Low Ambient Heating down to -30°C (-22°F)
- Coil (Outdoor) Copper Tube/Aluminum Fin with Anti-Corrosion Coil Coating (Gold Colored Fin - 1500Hr Salt Spray Rating)
- Coil (Indoor) Copper Tube/Aluminum Fin with Anti-Corrosion Coil Coating (Blue Colored Fin - 500Hr Salt Spray Rating)

SPECIFICATIONS, FEATURES & FUNCTION SUMMARY

SYSTEM TYPE			
Outdoor Model			ARX18HPJ1R32OA
Indoor Model			ARX12HPJ1R32IA
SYSTEM PERFORMANCE§			
Cooling Capacity	Min - Max	Btu/h	10,000 - 19,000
	Capacity @95°F	Btu/h	17,000
Heating Capacity	Min - Max	Btu/h	10,000 - 19,000
	Capacity @47°F	Btu/h	17,000
	Capacity @17°F	Btu/h	14,500
	Capacity @5°F	Btu/h	17,000
SEER2			18.0
EER2			12.5
HSPF2			9.0
COP @5°F			2.0
Cooling Temperature Range		°F	5 - 129
Heating Temperature Range		°F	-22 - 75
Refrigerant Type			R32
INDOOR UNIT			**ARX12HPJ1R32IA**
Power Supply		VAC	208-230V / 1Ph / 60 Hz
Sound Pressure Level		dB(A)	50
Control Voltage		VAC	24
MOCP		A	15
MCA		A	4.6
Electric Heater (Optional)		kW	5, 10
Air Flow		CFM	650
External Static Pressure (Up to)		In W.c.	1.0
Dehumidification		pt/hr	3.01
External Dimensions (W x H x D)		in	18-1/8 × 43-1/2 × 21-1/4
Package Dimension (W x H x D)		in	20-5/8 × 45-5/8 × 26
Net Weight		lbs	135.6
Gross Weight		lbs	144.4
OUTDOOR UNIT			**ARX18HPJ1R32OA**
Power Supply		VAC	208-230V / 1Ph / 60 Hz
Sound Pressure Level		dB(A)	59
Control Voltage		VAC	24
Rated Current Cooling		A	14
Rated Current Heating		A	15
MOCP		A	20
MCA		A	19
Cmpressor Type			G20 / Double Cylinder / 2 - Stage Inverter
External Dimensions (W x H x D)		in	36-1/4 × 29-3/8 × 14-9/16
Package Dimension (W x H x D)		in	42-1/4 × 31-1/2 × 19
Net Weight		lbs	133.4
Gross Weight		lbs	143.3
Refrigerant Charge - R32		oz	56.4
Additional Charge		oz/ft	0.108
REFRIGERANT PIPING			
Line Set Size (Liquid - Gas) - Flared Connections		in	1/4 - 1/2
Pre-Charge Length		ft	31
Pipe Length (Min - Max)		ft	10 - 66
Max. Pipe Elevation		ft	33

FEATURES & FUNCTIONS SUMMARY	
Ultra Low Frequency Torque Control	Yes
Power Factor Correction	Yes
Outdooor Electronic Expansion Valve (EEV)	Yes
Indoor TXV Control	Yes
Basepan With Electric Heater	Yes
Compressor With Electric Heater	Yes
Fin Coating (Outdoor - Golden & Indoor - Blue)	Acrylic Resin
Intelligent Defrosting	Yes
Intelligent Preheating	Yes
Low Voltage Startup	Yes
Memory/Power Failure Recovery	Yes
Self Diagnosis	Yes
Low Ambient Cooling	Yes
24VAC Thermostat Compatible	Yes
Indoor Fan Type	Centrifugal
Multi Fan Speeds	5 Speeds
Auxiliary Electrical Heater	Optional
A2L Leak Detection Sensor (Indoor)	Factory Installed

FAN PERFORMANCE



Static Pressure - Inches W.C.

STATIC PRESSURE Inches W.C.	0	0.1	0.15	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
Speed 1 - CFM	1090	940	900	810								
Speed 2 - CFM	1200	1100	1040	990	800							
Speed 3 - CFM	1340	1230	1110	1040	910	760	650					
Speed 4 - CFM	1680	1610	1560	1510	1430	1380	1350	1220	1130	970	770	
Speed 5 - CFM	1730	1680	1630	1580	1480	1480	1400	1310	1180	1050	950	830

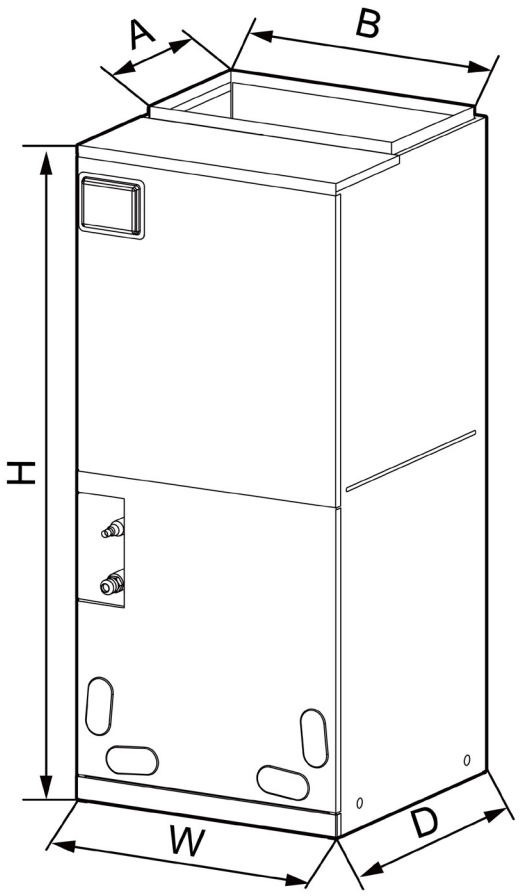
NOTE:
1. Above chart CFM ratings are based on dry coil with factory filter installed.
2. For wet coil CFM ratings, multiply the CFM by 0.96 correction factor.

DIMENSIONS

INDOOR UNIT

Unit: inch

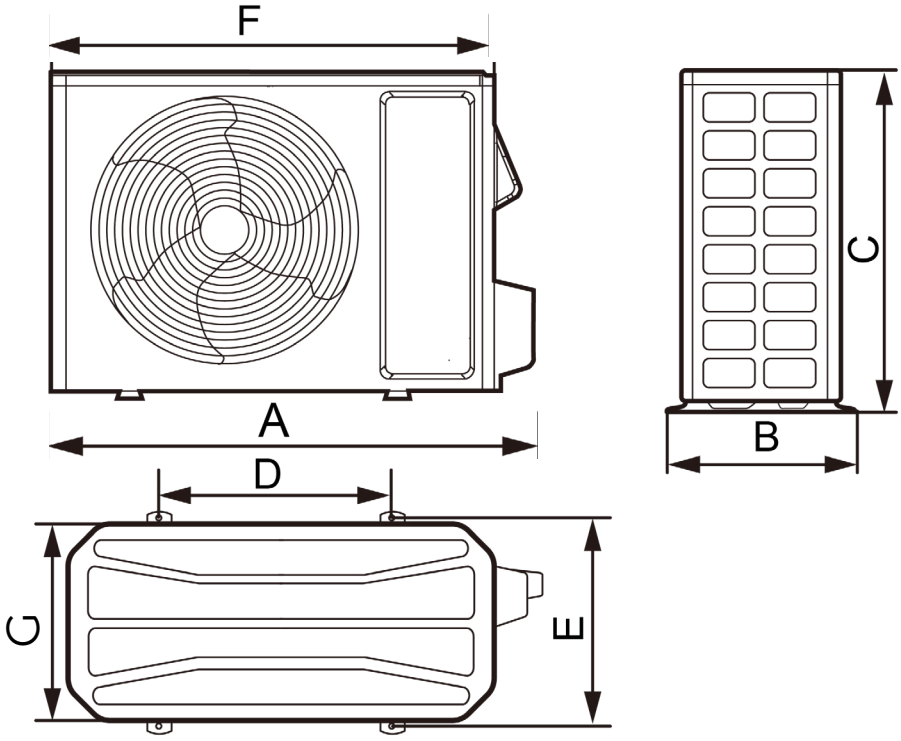
ARX12HPJ1R32IA	
DIMENSIONS	
A	11-5/8
B	16-3/4
H	43-1/2
W	18-1/8
D	21-1/4



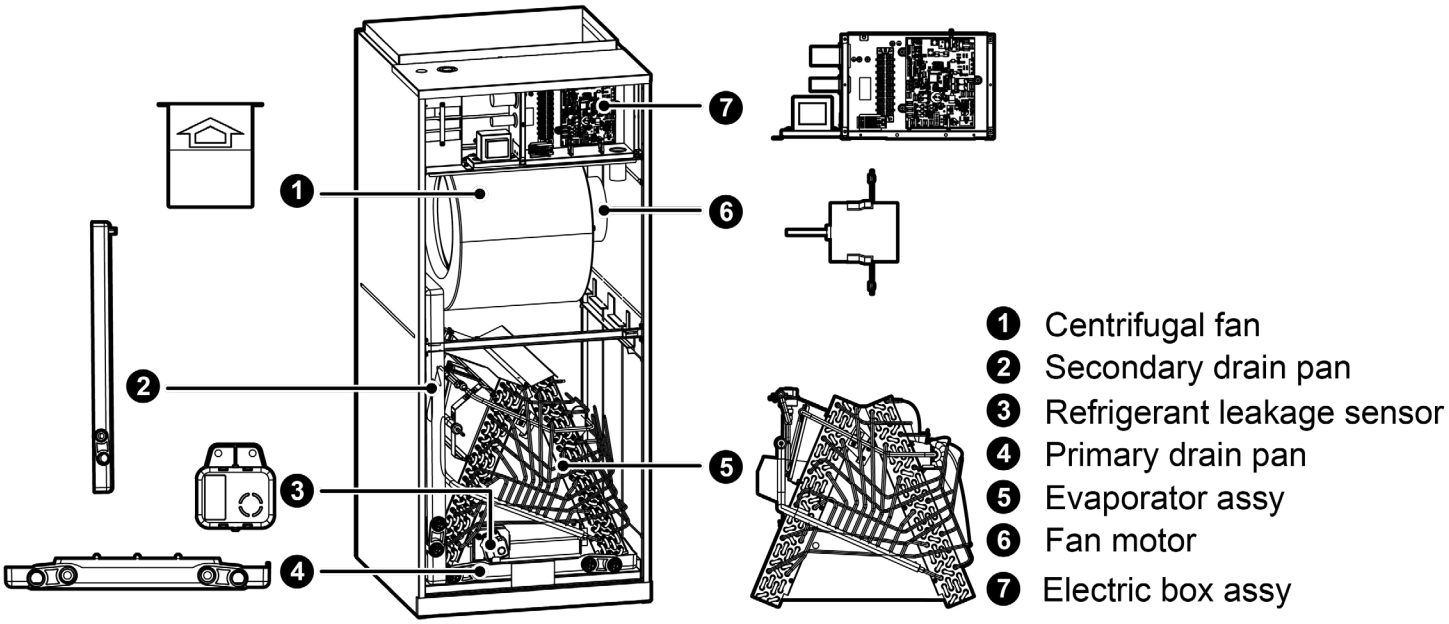
OUTDOOR UNIT

Unit: inch

ARX18HPJ1R32OA	
DIMENSIONS	
A	39-3/8
B	16-13/16
C	29-3/8
D	24
E	15-9/16
F	36-1/4
G	14-9/16



ACCESSORY HEATER AND GENERAL INFORMATION

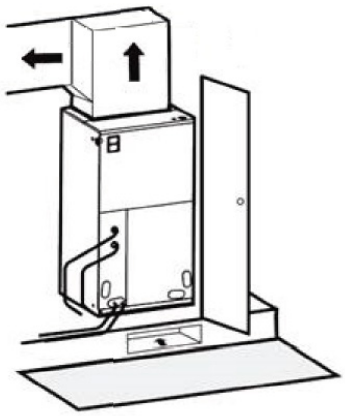


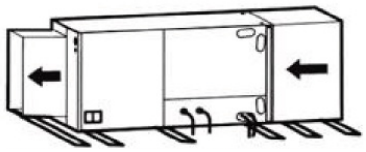
MODEL	Heat Kit Model	Part Number	Electric Heat (kW)		Min. Circuit Ampacity (A)		Max Fuse or Breaker (A)	
			208V	230V	208V	230V	208V	230V
ARX12HPJ1R32IA	320004060249	FLEXA2LHTR05KWD	3.74	4.6	28	29.9	30	35
	320004060250	FLEXA2LHTR10KWD	7.49	9.2	50	55	60	60

CLEARANCES

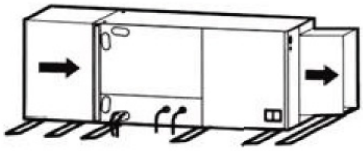
INDOOR UNIT
Minimum clearence

FRONT	> 24





Horizontal Left Configuration - No Modification Needed



Horizontal Right Configuration - Must Relocate Drain Pan

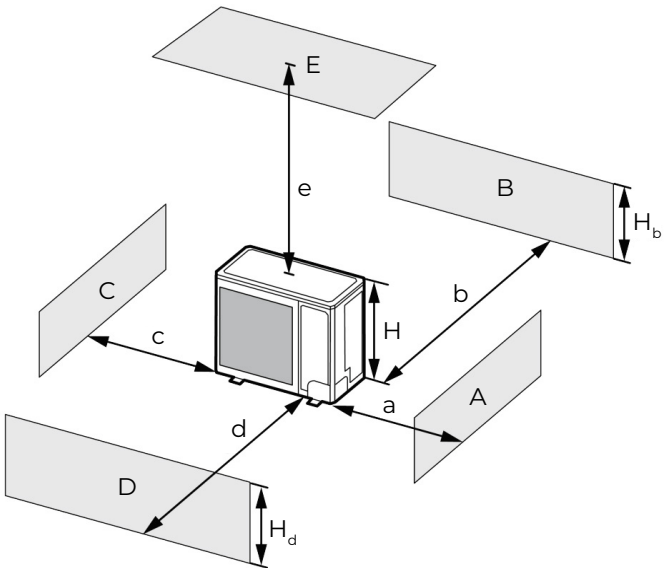
NOTE:
Allow a minimum of 24” in front of the unit for service clearance. When installing in an area directly over a finished ceiling (such as an attic), an emergency drain pan is required directly under the unit. **See local and state codes for requirements.** When installing this unit in an area that may become wet, elevate the unit with a sturdy, non-porous material. In installations that may lead to physical damage (i.e. a garage) it is advised to install a protective barrier to prevent such damage. This air handler is designed for a complete supply and return ductwork system.

OUTDOOR UNIT
Minimum clearence

NOTE:
Install the Outdoor Unit **2 Inches**
Above the Expected Snow Line

1. When one outdoor unit is to be installed.

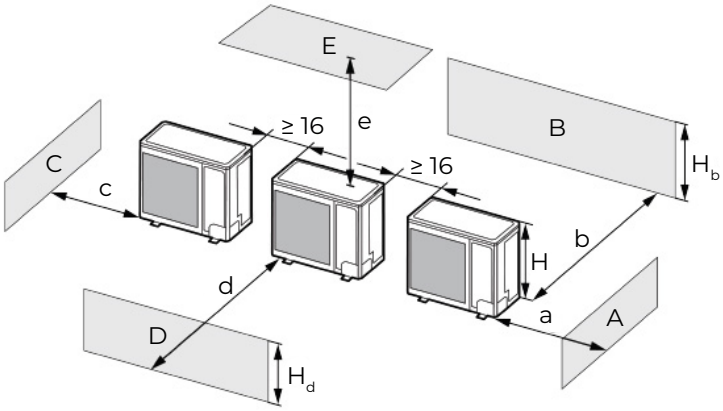
A - E	H_b H_d H		(in)				
			a	b	c	d	e
B	-		-	≥ 4	-	-	-
A, B, C	-		≥ 12	≥ 4	≥ 4	-	-
B, E	-		-	≥ 4	-	-	≥ 40
A, B, C, E	-		≥ 12	≥ 6	≥ 6	-	≥ 40
D	-		-	-	-	≥ 40	-
D, E	-		-	-	-	≥ 40	≥ 40
B, D	$H_b < H_d$	$H_d < H$	-	≥ 4	-	≥ 40	-
	$H_b > H_d$	$H_d > H$	-	≥ 4	-	≥ 40	-
B, D, E	$H_b < H_d$	$H_b \leq 1/2H$	-	≥ 10	-	≥ 80	≥ 40
		$1/2H < H_b \leq H$	-	≥ 10	-	≥ 80	≥ 40
		$H_b > H$	Prohibited				
	$H_b > H_d$	$H_d \leq 1/2H$	-	≥ 4	-	≥ 80	≥ 40
		$1/2H < H_d \leq H$	-	≥ 8	-	≥ 80	≥ 40
		$H_d > H$	Prohibited				



CLEARANCES

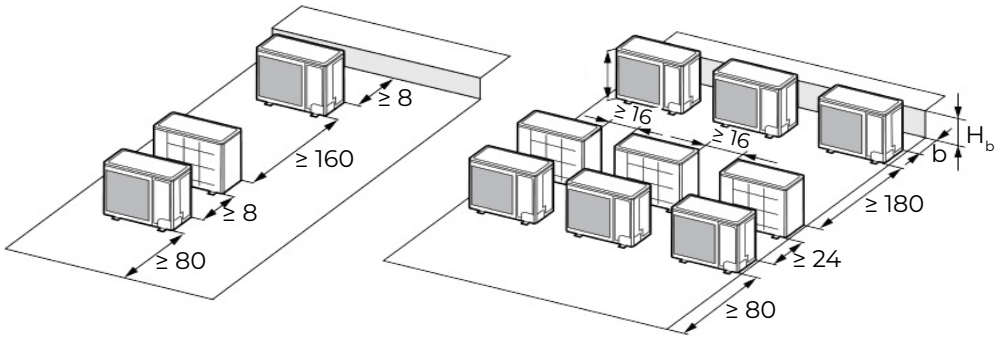
2. When two or more outdoor units are to be installed side by side.

A - E	H_b H_d H		(in)				
			a	b	c	d	e
A, B, C	-		≥ 12	≥ 12	≥ 40	-	-
A, B, C, E	-		≥ 12	≥ 12	≥ 40	-	≥ 40
D	-		-	-	-	≥ 80	-
D, E	-		-	-	-	≥ 80	≥ 40
B, D	$H_b < H_d$	$H_d > H$	-	≥ 12	-	≥ 80	-
B, D, E	$H_b > H_d$	$H_d \leq 1/2H$	-	≥ 10	-	≥ 80	-
	$H_b < H_d$	$1/2H < H_d \leq H$	-	≥ 12		≥ 100	
		$H_b \leq 1/2H$	-	≥ 12	-	≥ 80	≥ 40
		$1/2H < H_b \leq H$	-	≥ 12	-	≥ 100	≥ 40
		$H_b > H$	Prohibited				
	$H_b > H_d$	$H_d \leq 1/2H$	-	≥ 10	-	≥ 100	≥ 40
		$1/2H < H_d \leq H$	-	≥ 12	-	≥ 100	≥ 40
		$H_d > H$	Prohibited				



3. When outdoor units are installed in rows.

H_b H_d	(in)
$H_b \leq 1/2H$	b ≤ 10
$1/2H < H_b \leq H$	b ≤ 12
$H_b > H_d$	Prohibited



4. When outdoor units are installed one above another.