BARD Interior Solution Heat Pumps 3 - 5 Ton Capacity I30Z2 - I60Z2 Models 208V - 460V 60hz

IZ Series I-TEC™ Heat Pump

The I-TEC is one of the most advanced systems of its kind. It meets the most stringent sound level requirements while offering premium efficiency. Because the outdoor air portion of the unit is above the sill at window level, installing the unit is simple and it blends in seamlessly with the building's exterior. Two stage step capacity operation using ECM fan technology provides quiet and efficient operation. An indirect return airpath provides quiet unit operation. All these features and more make the I-TEC the ideal product for new construction and rennovation projects.

- *Complies with efficiency requirements of ASHRAE/IESNA 90.1-2019*
- *Certified to ANSI/AHRI Standard 390-2021 for SPVU (Single Package Vertical Units)*
- *Intertek ETL Listed to Standard for Safety Heating and Cooling Equipment ANSI/UL 1995, Fifth Edition/CSA 22.2 No. 236-05 Fourth Edition*
- *Commercial Product - Not intended for residential application*
- *Bard is an ISO 9001:2015 Certified Manufacturer*
- *The AHRI Certified® mark indicates Bard Manufacturing Company participation in the AHRI Certification program. For verification of individual certified products, go to www.ahridirectory.org.*

Bard SINCE 1914

BARDHVAC.COM

FORM NO. S3460-1123

ENGINEERED • BUILT • SUPPORTED IN THE USA

c ETL US LISTED Intertek

ISO 9001:2015 CERTIFICATION intertek

AHRI CERTIFIED www.ahridirectory.org Globally Recognized. Industry Respected.

Climate Control Solutions

////// IZ NOMENCLATURE

Digit #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	I	3	6	Z	2	-	A	0	Z	E	P	X	X	X	X

UNIT SERIES
I-TEC

NOMINAL CAPACITY
36 - 3 Ton Capacity
42 - 3.5 Ton Capacity
48 - 4 Ton Capacity
60 - 5 Ton Capacity

UNIT TYPE
Z - Indirect Heat Pump

REVISION
2 - Revision 2

PLACEHOLDER
- Standard Unit

VOLTAGE/POWER OPTIONS
A - 208/230 Volt 1 Phase 60 Hz
B - 208/230 Volt 3 Phase 60 Hz
C - 460 Volt 3 Phase 60 Hz

ELECTRIC HEAT
0C - 460V Circuit Breaker 0kw
0Z - 230V Circuit Breaker 0kw
04 thru 20 - *See Electrical Specs for further details*

ACCESSORIES
X - 24VAC Connections

COIL & UNIT COATING OPTIONS
X - Uncoated Copper/Aluminum Evaporator and Condenser coils.
1 - Protective Coated Evaporator and Uncoated Condenser coil.
2 - Protective Coated Condenser and Uncoated Evaporator coil.
3 - Protective Coated Evaporator and Condenser coils.

GRAPHICS
X - No Graphics
A - Stacked Books Graphic, White Cabinet Color

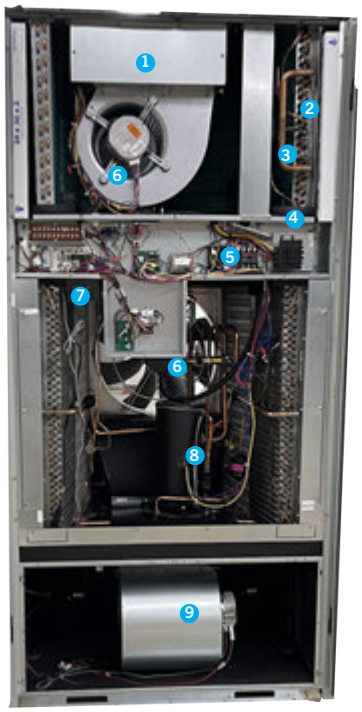
COLOR AND CABINET FINISH
X - Beige baked enamel textured finish
1 - White baked enamel textured finish
4 - Gray baked enamel textured finish

FILTER
P - 2" MERV8 Disposable Filter
M - 2" MERV11 Disposable Filter
N - 2" MERV13 Disposable Filter
A - 2" MERV13 Filter with Long Life UVC-LED Light.
B - 2" MERV13 Filter with NPBI

VENT PACKAGE
B - No Ventilation
V - Classroom Ventilator (CRV)
D - Economizer, Field Supplied Controls
Y - Dry Bulb Economizer with JADE Control
Z - Enthalpy Economizer with JADE Control

ENGINEERED FEATURES - ALL UNIT MODELS TEST

1. Double wall construction, 20-ga. exterior skin, no visible fasteners.
2. Non fiberglass insulation.
3. Hinged, lockable, removable doors.
4. Removable sides and modularized construction for transporting through standard doors or in elevators allows installation on second and third floor. Suitable for any floor installations.
5. Units designed to be flush to a smooth interior wall and not require trim kits by use of adjustable wall sleeves; Trim Kits available where required.
6. Low sound levels are achieved by numerous system design innovations including special acoustical insulation.
7. Installation flexibility. Can be installed in corner applications with one side against a wall.



1. Supplimental electric heater packages available. Electric heat allows for comfortable operation during coil defrost mode and for heating during extremely low outdoor temperatures.
2. Pleated 2" filter installation with extra-large filter area for extended filter life between filter changes.
3. Evaporator coils constructed with hydrophilic fin stock. Wettable surface with low contact angle – no bead-up condensate, lower wet-coil air-side pressure drop, improved draining & reduce re-entrainment of moisture back into the air stream in continuous blower operating modes. Antimicrobial properties provide microbial resistance to fungicidal growth. Resistant to Mold and Mildew, ASTM D3273 – no growth. Seals fin surface against aluminum oxide formation.
4. Non-corrosive drain pans with no standing water.
5. Extra large full width control panel for easy access to all controls. Circuit Breakers on 230V models, and Toggle Disconnect on 460V models. 24VAC 75VA control transformer with circuit breaker. 24VAC low-voltage terminal strip for thermostat or DDC control. Electronic heat pump control board with diagnostics.
6. ECM indoor and outdoor motors. Indoor fan system provides a constant CFM up to .050" W.C. ESP. Enhanced indoor fan design reduces indoor sound levels. Outdoor fan system uses composite swept-wing blade design for quiet operation.
7. Readily accessible service ports located behind locking hinged doors.
8. 2-Stage scroll compressors with discharge muffler, double floating isolation mounting system, and sound muffling cover. High and Low Pressure switches with lockout circuit. Liquid line filter/drier. Heating and cooling thermostatic expansion valves.
9. Designed for over-the-window sill wall penetration and has 3" vertical adjustment for wall sleeve attachment. Unit ventilation section can be removed for easier multi-story installations. Multiple ventilation packages available.

Unit Modes of Operation

Cooling Operation:
The Bard I-TEC Series products offer efficient two stage compressor cooling operation using R410A refrigerant. Scroll compressor technology delivers years of quiet, reliable operation.

Heating Operation:
The Bard I-TEC Series products offer efficient two stage heat pump heating and optional single or two stage heating operation using resistance heaters. Circuit breaker disconnect protection is standard in all 230V units equipped with electric heat.

Ventilation:
The I-TEC product provides the perfect platform to not only cool and heat an indoor area, but also provide a means of bringing outdoor air into the building. By including ventilation in the Wall-Mount, expensive costs associated with additional dedicated ventilation air systems can be avoided.

Filtration and Indoor Air Quality:
Providing the best air filtration solution is important to occupants inside a room or structure. Bard provides several filter options based on MERV filtration (up to MERV13). A long life UV-C light is also available to further enhance Indoor Air Quality (IAQ) levels.

Low Outdoor Temperature Cooling Operation:
A low ambient control (LAC) is installed in all I-TEC products to ensure cooling operation will be available even during low outdoor temperatures.

High Outdoor Temperature Cooling Operation:
The Bard I-TEC Series products are designed and tested to use efficient condenser coils with high airflow condenser fan systems. This lowers energy use and provides cooling during extremely warm outdoor weather conditions.

CAPACITY AND EFFICIENCY RATINGS

CAPACITY AND EFFICIENCY RATINGS (STAGE 2) FULL LOAD OPERATION

MODELS	I36Z2	I42Z2	I48Z2	I60Z2
Cooling BTUH, Full Load Capacity, 95-80/67 EER ① Rated CFM	35,000 12.0 1150	40,500 11.4 1300	45,500 11.2 1400	53,500 11.0 1600
IPLV (Integrated Full & Part Load) ② 80-80/67	16.2	16.0	16.1	14.7
Heating BTUH, Full Load Capacity 47/43-70 COP ③ Rated CFM	32,000 3.6 1150	37,600 3.7 1300	44,500 3.5 1400	53,500 3.5 1600

① EER = Energy Efficiency Ratio - BTU/WATT efficiency
② IPLV = Integrated Part Load Value - BTU/WATT efficiency (combines full and part load performance)
③ COP = Coefficient of Performance - BTU/WATT efficiency

UNIT SHIPPING WEIGHTS

MODELS	NO VENT	CRV	ECONOMIZER
I36Z2-A	846	938	973
I36Z2-B	846	938	973
I36Z2-C	881	973	1008
I42Z2-A	896	988	1023
I42Z2-B	896	988	1023
I42Z2-C	931	1023	1058
I48Z2-A	884	976	1011
I48Z2-B	884	976	1011
I48Z2-C	919	1011	1046
I60Z2-A	931	1023	1058
I60Z2-B	931	1023	1058
I60Z2-C	966	1058	1093

Deduct 49# from all values for installed weight.

3 THROUGH 3½ TON

MODELS	I36Z2-A	I36Z2-B	I36Z2-C	I42Z2-A	I42Z2-B	I42Z2-C
ELECTRICAL RATING--60 HZ	230/208-1	230/208-3	460-3	230/208-1	230/208-3	460-3
Operating Voltage Range	197-253		414-506	197-253		414-506
COMPRESSOR						
Volts	230/208-1	230/208-3	460-3	230/208-1	230/208-3	460-3
Rated Load Amps (230/208)	11.8/13.4	8.1/9.2	4.9	14.4/16.6	11.5/13.2	5.8
Branch Circuit Selection Current	14.1	9.6	5.1	17.9	14.2	6.2
Locked Rotor Amps	84.2	73.8	37	96	88	44
FAN MOTOR – ECM						
Horsepower	1/3 - 1250 RPM			1/3 - 1250 RPM		
Volts	230/208-60-1			230/208-60-1		
Full Load Amps	2.2			2.2		
+ CFM	2200			2200		
BLOWER MOTOR – ECM						
Horsepower	1/2			1/2		
Volts	230/208-60-1			230/208-60-1		
Full Load Amps	2.2			2.7		

+ CFM @ rating points, will modulate based upon O.D. ambient.

4 AND 5 TON

MODELS	I48Z2-A	I48Z2-B	I48Z2-C	I60Z2-A	I60Z2-B	I60Z2-C
ELECTRICAL RATING--60 HZ	230/208-1	230/208-3	460-3	230/208-1	230/208-3	460-3
Operating Voltage Range	197-253		414-506	197-253		414-506
COMPRESSOR						
Volts	230/208-1	230/208-3	460-3	230/208-1	230/208-3	460-3
Rated Load Amps (230/208)	16.9/19.6	11.6/13.5	6.2	21/24	13.5/15.4	6.5
Branch Circuit Selection Current	20.4	14.0	6.4	25.6	16.4	6.9
Locked Rotor Amps	122.1	83.1	41	158	110.0	54.7
FAN MOTOR – ECM						
Horsepower	1/2			1/2		
Volts	230/208-60-1			230/208-60-1		
Full Load Amps	3.4			3.1		
+ CFM	2300			2400		
BLOWER MOTOR – ECM						
Horsepower	1/2			3/4		
Volts	230/208-60-1			230/208-60-1		
Full Load Amps	3.3			3.6		

+ CFM @ rating points, will modulate based upon O.D. ambient.

/////// INDOOR EC MOTOR BLOWER SPEEDS AND AIRFLOW PERFORMANCE CHART

Model	Rated ESP.	Max. ESP	Continuous CFM	Rated 2nd Stage CFM	Rated 1st Stage CFM	4-10 KW CFM	15-20 KW CFM
I36Z2	0.15	0.50	600	1150	850	700	1050
I42Z2	0.15	0.50	650	1300	950	700	1050
I48Z2	0.20	0.50	700	1400	1050	700	1400
I60Z2	0.20	0.50	800	1600	1100	700	1400

① Motor will deliver consistent CFM through voltage supply range with no deterioration up to 0.50 WC ESP.

Indoor airflow is measured in Cubic Feet per Minute (CFM) will remain constant using the EC indoor motor provided with the I-TEC product.

Continuous CFM Blower and Vent Only Speed: The I-Tec series uses this speed when **fan only (G) or ventilation operation (A)** is used. Listed CFM is provided up to 0.50" WC External Static Pressure (ESP). See airflow performance chart for CFM amount.

Rated 1st Stage CFM: The I-TEC series uses this speed during **Part Load Compressor Cooling (Y1) and Heating (B)**. Listed CFM is provided up to 0.50" WC External Static Pressure (ESP). See airflow performance chart for CFM amount.

Rated 2nd Stage CFM: The I-TEC series uses this speed during **Full Load Compressor Cooling (Y1, Y2) and Heating (B)**. Listed CFM is provided up to 0.50" WC External Static Pressure (ESP). See airflow performance chart for CFM amount.

4-10 Kw CFM: The I-TEC series uses this speed during **Standard Electric Heat (W2) Operation.** Listed CFM is provided up to 0.50" WC External Static Pressure (ESP). See airflow performance chart for CFM amount. Unit will operate at Rated 1st Stage CFM if used concurrently with heat pump operation.

15-20 Kw CFM: The I-TEC series uses this speed during **Emergency Electric Heat (W3) Operation.** Listed CFM is provided up to 0.50" WC External Static Pressure (ESP). See airflow performance chart for CFM amount. Unit will not operate 15-20 Kw electric heat (Emergency Heat) concurrently with heat pump compressor operation.

/////// INDOOR AIRFLOW STATIC

The airflow amount that passes through the unit is very important when considering cooling capacity and proper unit operation. Restriction of the amount of air passing through the unit is called external static pressure (ESP). As the amount of air passing through the unit is restricted, the ESP value increases. This will have a direct impact on how heating and cooling equipment performs when used in an application. It is important to have a professional HVAC contractor, distributor, or technician complete a duct static calculation if supply or return ducts are used with the WA series unit. Unit filter static must also be calculated into the total ESP value.

Supply Duct Static: Supply duct static will include duct work connected to the unit supply opening, supply registers, filtration installed in the supply duct, or any other device in the supply airstream that will restrict airflow. All ducts must be sealed to reduce duct air leakage, and flex duct work must not include restriction due to installation. Duct static must be calculated by a HVAC professional and include all factors of the duct design.

Return Duct Static: Return duct static will include duct work connected to the unit return opening, return registers, filtration installed in the return duct, or any other device in the return airstream that will restrict airflow. All ducts must be sealed to reduce duct air leakage, and flex duct work must not include restriction due to installation.Duct static must be calculated by a HVAC professional and include all factors of the duct design.

Unit Filter Static: The I-TEC series uses a unit filter installed before the indoor blower assembly that filters both indoor air from the room and outdoor air entering through the ventilation device. When additional filtration is required (higher MERV rating), additional static will need to be added to the total external static pressure (ESP). The following chart is to be used to estimate additional static pressure for a installed clean filter.

FILTER CODE	FILTER MERV RATING	FILTER STATIC INCHES WC.	FILTRATION LEVEL
P	**MERV 8**	.00" WC	Average Filtration, 2" Thickness Pleated Disposable Media.
M	**MERV 11**	.02" WC	Above Average Filtration, 2" Thickness Pleated Disposable Media.
N, A	**MERV 13**	.05" WC	High Filtration, 2" Thickness Pleated Disposable Media.

Calculating Total External Static Pressure: Supply duct static, return duct static, unit filter static, and any other source of additional static pressure are added together. Total external static pressure must not exceed 0.50" WC.

Total External Static Pressure Calculation:

Supply Duct Static + Return Duct Static + Filter Static + Additional External Static = Total External Static Pressure (ESP)

Non-Ducted Applications: Applications that do not include supply or return ducts inside the structure, use Bard supply duct-free plenums, and do not have additional sources of external static will typically reflect rated airflow amounts shown in the Indoor Airflow CFM chart.

COOLING APPLICATION DATA AT RATED AIRFLOW - FULL LOAD COOLING

Model	INDOOR D.B. / W.B.	COOLING CAPACITY (BTUH)	OUTDOOR DRY BULB TEMPERATURE										
			75°F 23.9°C	80°F 26.6°C	85°F 29.4°C	90°F 32.2°C	95°F 35°C	100°F 37.8°C	105°F 40.5°C	110°F 43.3°C	115°F 46.1°C	120°F 48.8°C	125°F 51.6°C
I36Z2	75/62	Total Cooling	40100	37300	34800	32500	30500	28800	27300	26000	25000	24000	23300
		Sensible Cooling	31600	30000	28700	27400	26400	25500	24800	24100	23700	23300	23200
	80/67	Total Cooling	42800	40600	38600	36700	35000	33500	32200	31000	30000	29100	28400
		Sensible Cooling	30600	29400	28400	27400	26600	25900	25400	24900	24600	24400	24400
	85/72	Total Cooling	51000	47500	44400	41500	38900	36700	34700	33000	31500	30300	29200
		Sensible Cooling	31400	29900	28600	27200	26100	25100	24200	23400	22700	22100	21600
I42Z2	75/62	Total Cooling	45100	42100	39600	37400	35300	33600	32000	30600	29500	28600	27800
		Sensible Cooling	35600	34000	32600	31300	30200	29200	28400	27700	27100	26700	26300
	80/67	Total Cooling	48100	45900	44000	42200	40500	39100	37700	36500	35500	34600	33900
		Sensible Cooling	34500	33300	32300	31300	30500	29700	29100	28600	28200	27900	27700
	85/72	Total Cooling	57300	53700	50500	47700	45000	42800	40700	38900	37300	36000	34900
		Sensible Cooling	35400	33800	32500	31100	29900	28800	27800	26800	26000	25200	24500
I48Z2	75/62	Total Cooling	50200	47200	44400	42000	39600	37600	35800	34200	32800	31500	30500
		Sensible Cooling	39500	37900	36500	35100	33800	32700	31700	30800	30000	29300	28700
	80/67	Total Cooling	53600	51400	49300	47400	45500	43800	42200	40800	39400	38200	37100
		Sensible Cooling	38300	37100	36100	35100	34100	33300	32500	31800	31200	30700	30200
	85/72	Total Cooling	63900	60100	56600	53500	50600	47900	45500	43400	41400	39700	38200
		Sensible Cooling	39200	37700	36300	34900	33500	32200	31000	29800	28800	27800	26700
I60Z2	75/62	Total Cooling	59100	55500	52300	49400	46600	44200	42000	39900	38100	36600	35100
		Sensible Cooling	45000	43300	41600	40100	38700	37300	36200	35000	34000	33100	32200
	80/67	Total Cooling	63100	60500	58100	55800	53500	51500	49500	47600	45900	44300	42800
		Sensible Cooling	43600	42400	41200	40100	39000	38000	37100	36200	35400	34600	33900
	85/72	Total Cooling	75200	70700	66700	63000	59400	56300	53400	50700	48200	46000	44000
		Sensible Cooling	44700	43000	41400	39800	38300	36800	35400	34000	32600	31300	30000

Notes:
- Unit compressor cooling operation below 60°F (15.5°C) uses a Low Ambient Control (LAC).
- 1000 BTUH = .29307 kW
- Outdoor air temperatures provided are an average of the condenser inlet air temperature.

HEATING APPLICATION DATA AT RATED AIRFLOW - FULL LOAD HEATING

Model	INDOOR Temp	Heating CAPACITY (BTUH)	OUTDOOR DRY BULB TEMPERATURE													
			0	5	10	15	20	25	30	35	40	45	50	55	60	65
I36Z2	70	BTU/H	12900	15200	17300	19500	21600	23600	25600	27600	29500	31300	33100	34900	36600	38300
		Watts	2140	2210	2270	2320	2370	2410	2440	2470	2490	2510	2520	2520	2520	2510
I42Z2	70	BTU/H	20300	21800	23500	25100	26900	28700	30600	32600	34700	36800	39000	41300	43600	46000
		Watts	2540	2600	2650	2710	2760	2800	2840	2880	2910	2940	2970	2990	3010	3030
I48Z2	70	BTU/H	22100	24200	26400	28600	30900	33300	35800	38300	40800	43500	46200	49000	51800	54700
		Watts	2970	3090	3200	3310	3410	3500	3580	3650	3720	3780	3830	3870	3900	3920
I60Z2	70	BTU/H	26700	29300	32100	34800	37600	40500	43400	46300	49300	52300	55400	58500	61700	64900
		Watts	3500	3620	3730	3840	3940	4030	4110	4190	4260	4330	4380	4430	4480	4510

Notes:
- Performance data at rated CFM. Data includes defrost operation below 45°F (7.2°C) outdoor temperatures.
- Outdoor air temperatures provided are an average of the condenser inlet air temperature.
- Supplemental heaters are recommended for applications requiring heating below a 15°F (-9.4°C) outdoor temperature.
- 1000 BTUH = .29307 kW

COOLING APPLICATION DATA AT RATED AIRFLOW - PART LOAD COOLING

Model	INDOOR D.B. / W.B.	COOLING CAPACITY (BTUH)	OUTDOOR DRY BULB TEMPERATURE										
			75°F 23.9°C	80°F 26.6°C	85°F 29.4°C	90°F 32.2°C	95°F 35°C	100°F 37.8°C	105°F 40.5°C	110°F 43.3°C	115°F 46.1°C	120°F 48.8°C	125°F 51.6°C
I36Z2	75/62	Total Cooling	28400	26800	25300	23900	22700	21400	20300	19300	18300	17400	16600
		Sensible Cooling	22900	22200	21400	20800	20100	19600	19000	18500	18000	17400	16600
	80/67	Total Cooling	30300	29200	28100	27000	26000	24900	23900	23000	22000	21100	20200
		Sensible Cooling	22200	21700	21200	20800	20300	19900	19500	19100	18700	18200	17800
	85/72	Total Cooling	36100	34200	32300	30500	28900	27300	25800	24500	23100	22000	20800
		Sensible Cooling	22800	22100	21300	20700	19900	19300	18600	17900	17300	16500	15800
I42Z2	75/62	Total Cooling	32100	30900	29700	28300	27100	25900	24500	23300	22000	20600	19200
		Sensible Cooling	25900	25200	24600	23900	23300	22600	22000	21200	20600	19900	19100
	80/67	Total Cooling	34200	33600	32900	32000	31100	30100	28900	27700	26400	24900	23400
		Sensible Cooling	25100	24700	24300	23900	23500	23000	22500	21900	21400	20800	20100
	85/72	Total Cooling	40800	39300	37800	36200	34600	33000	31200	29500	27800	25900	24100
		Sensible Cooling	25700	25100	24400	23800	23100	22300	21500	20600	19700	18800	17800
I48Z2	75/62	Total Cooling	37000	34900	32800	30900	29100	27500	25900	24400	23000	21700	20500
		Sensible Cooling	29600	28600	27600	26600	25700	24800	23900	23100	22300	21500	20500
	80/67	Total Cooling	39500	38000	36400	34900	33400	32000	30500	29100	27700	26300	24900
		Sensible Cooling	28700	28000	27300	26600	25900	25200	24500	23800	23200	22500	21800
	85/72	Total Cooling	47100	44500	41800	39400	37100	35000	32900	31000	29100	27400	25600
		Sensible Cooling	29400	28400	27500	26400	25400	24400	23400	22300	21400	20400	19300
I60Z2	75/62	Total Cooling	40800	38700	36600	34600	32800	31000	29300	27700	26200	24700	23300
		Sensible Cooling	31400	30200	29100	28000	27000	26000	25000	24100	23200	22400	21500
	80/67	Total Cooling	43500	42100	40600	39100	37600	36100	34600	33000	31500	29900	28300
		Sensible Cooling	30400	29600	28800	28000	27200	26400	25600	24900	24100	23400	22600
	85/72	Total Cooling	51800	49200	46600	44200	41800	39500	37300	35100	33100	31100	29100
		Sensible Cooling	31200	30100	29000	27800	26700	25600	24400	23400	22200	21200	20000

Notes:
- Unit compressor cooling operation below 60°F (15.5°C) uses a Low Ambient Control (LAC).
- 1000 BTUH = .29307 kW
- Outdoor air temperatures provided are an average of the condenser inlet air temperature.

HEATING APPLICATION DATA AT RATED AIRFLOW - PART LOAD HEATING

Model	INDOOR Temp	Heating CAPACITY (BTUH)	OUTDOOR DRY BULB TEMPERATURE													
			0	5	10	15	20	25	30	35	40	45	50	55	60	65
I36Z2	70	BTU/H	10300	11710	13143	14568	15982	17387	18782	20168	21543	22910	24266	25613	26950	28278
		Watts	1829	1853	1872	1888	1900	1908	1912	1912	1908	1900	1888	1873	1853	1829
I42Z2	70	BTU/H	9700	12146	14487	16737	18896	20964	22942	24828	26625	28330	29945	31469	32902	34245
		Watts	2070	2098	2124	2146	2165	2180	2193	2203	2210	2213	2213	2211	2205	2196
I48Z2	70	BTU/H	11000	13434	15863	18239	20561	22830	25044	27205	29312	31366	33365	35311	37203	39042
		Watts	2354	2402	2446	2486	2523	2556	2586	2611	2633	2651	2666	2677	2684	2687
I60Z2	70	BTU/H	15600	17802	20002	22213	24434	26666	28909	31163	33427	35702	37988	40285	42592	44910
		Watts	2656	2723	2785	2843	2896	2945	2989	3029	3064	3095	3121	3142	3159	3172

Notes:
- Performance data at rated CFM. Data includes defrost operation below 45°F (7.2°C) outdoor temperatures.
- Outdoor air temperatures provided are an average of the condenser inlet air temperature.
- Supplemental heaters are recommended for applications requiring heating below a 15°F (-9.4°C) outdoor temperature.
- 1000 BTUH = .29307 kW

ELECTRICAL SPECIFICATIONS: I30 TO I60 UNITS WITH AND WITHOUT DEHUMIDIFICATION

MODEL		Rated Volts & Phase	Single Circuit				Dual Circuit							
			No. Field Power Circuits	MCA	MOP	Field Wire Size	Ground Wire	MCA		MOP		Field Power Wire Size		Ground Wire Size	
								Ckt. A	Ckt. B	Ckt. A	Ckt. B	Ckt. A	Ckt. B	Ckt. A	Ckt. B
I36	I36Z2-A0Z	240/208-1	1	25	30	10	10								
	-A05	240/208-1	1	51	60	6	10								
	-A10	240/208-1	1 or 2	77	80	4	8	25	52	30	60	10	6	10	10
	-A15	240/208-1	1 or 2	84	90	4	8	32	52	35	60	8	6	10	10
	I36Z2-B0Z	240/208-3	1	19	25	12	10								
	-B06	240/208-3	1	37	40	8	10								
	-B09	240/208-3	1	46	50	8	10								
	-B15	240/208-3	1	51	60	6	10								
	I36Z2-C0C	480-3	1	11	15	14	14								
	-C0Z	480-3	1	11	15	14	14								
	-C06	480-3	1	20	20	14	12								
	-C09	480-3	1	25	25	12	10								
	-C15	480-3	1	27	30	10	10								
I42	I42Z2-A0Z	240/208-1	1	30	35	8	10								
	-A05	240/208-1	1	56	60	6	10								
	-A10	240/208-1	1 or 2	82	90	4	8	30	52	35	60	8	6	10	10
	-A15	240/208-1	1 or 2	85	90	4	8	33	52	35	60	8	6	10	10
	I42Z2-B0Z	240/208-3	1	25	30	10	10								
	-B06	240/208-3	1	43	45	8	10								
	-B09	240/208-3	1	52	60	6	10								
	-B15	240/208-3	1	52	60	6	10								
	I42Z2-C0C	480-3	1	13	15	14	14								
	-C0Z	480-3	1	13	15	14	14								
	-C06	480-3	1	22	25	12	10								
	-C09	480-3	1	26	30	10	10								
	-C15	480-3	1	27	30	10	10								
I48	I48Z2-A0Z	240/208-1	1	35	40	8	10								
	-A04	240/208-1	1	56	60	6	10								
	-A05	240/208-1	1 or 2	61	70	6	8	35	26	40	30	8	10	10	10
	-A10	240/208-1	1 or 2	87	90	3	8	35	52	40	60	8	6	10	10
	-A15	240/208-1	1 or 2	87	90	3	8	35	52	40	60	8	6	10	10
	-A20	240/208-1	1 or 2	111	125	2	6	59	52	60	60	6	6	10	10
	I48Z2-B0Z	240/208-3	1	27	30	10	10								
	-B06	240/208-3	1	45	45	8	10								
	-B09	240/208-3	1	54	60	6	10								
	-B15	240/208-3	1	54	60	6	10								
	-B18	240/208-3	2	N/A	N/A			34	28	35	30	8	10	10	10
	I48Z2-C0C	480-3	1	15	20	14	12								
	-C0Z	480-3	1	15	20	14	12								
	-C06	480-3	1	24	25	12	10								
	-C09	480-3	1	29	30	10	10								
	-C15	480-3	1	29	30	10	10								
	-C18	480-3	1	34	35	8	10								
I60	I60Z2-A0Z	240/208-1	1	41	50	8	10								
	-A05	240/208-1	1 or 2	67	70	4	8	41	26	50	30	8	10	10	10
	-A10	240/208-1	1 or 2	93	100	3	8	41	52	50	60	8	6	10	10
	-A15	240/208-1	1 or 2	93	100	3	8	41	52	50	60	8	6	10	10
	-A20	240/208-1	1 or 2	112	125	2	6	60	52	60	60	6	6	10	10
	I60Z2-B0Z	240/208-3	1	30	35	8	10								
	-B06	240/208-3	1	48	50	8	10								
	-B09	240/208-3	1	57	60	6	10								
	-B15	240/208-3	1	57	60	6	10								
	-B18	240/208-3	2	N/A	N/A			35	28	35	30	8	10	10	10
	I60Z2-C0C	480-3	1	16	20	14	12								
	-C0Z	480-3	1	16	20	14	12								
	-C06	480-3	1	25	25	12	10								
	-C09	480-3	1	29	30	10	10								
	-C15	480-3	1	29	30	10	10								
	-C18	480-3	1	34	35	8	10								

IMPORTANT: Based on 75°C copper wire. All wiring must conform to the National Electrical Code and all local codes. While this electrical data is presented as a guide, it is important to electrically connect properly sized fuses & conductor wires in accordance with the National Electrical Code & all local codes.
The "Minimum Circuit Ampacity" values are to be used for sizing the field power conductors.
Refer to the National Electrical Code (latest version), Article 310 for power conductor sizing.

NOTE: Dash "-" replaced with a "D" in the unit model number for dehumidification units.

ADDITIONAL ELECTRIC HEAT INFORMATION

Minimum Circuit Ampacity (MCA): MCA is the highest steady-state electrical current that the I-TEC unit should see when operating correctly. MCA is used to calculate the minimum field wire size required and is also referenced when sizing external fuses or circuit breakers. MCA is calculated using formulas provided in UL1995 4th Edition.

Maximum External Fuse or Circuit Breaker (MOCP): Maximum Over-Current Protection is a calculated value provided that determines the maximum size of the over-current protection device including time delay fuses and circuit breakers. 230VAC products will include a circuit breaker properly sized for the product. Breaker Amp load ratings will be between the MCA (minimum) and MOCP (maximum) electrical data provided. 460VAC products will ship with a toggle disconnect and will rely on an external means of over-current protection. MOCP is calculated using formulas provided in UL1995 4th Edition.

Emergency Heat: Electric heat use above 10kw for single phase and 9kw for three phase equipment is considered emergency heat and will not operate concurrently with heat pump compessor operation.

ELECTRIC HEAT TABLE - REFER TO ELECTRICAL SPECIFICATIONS FOR AVAILABILITY BY UNIT MODEL

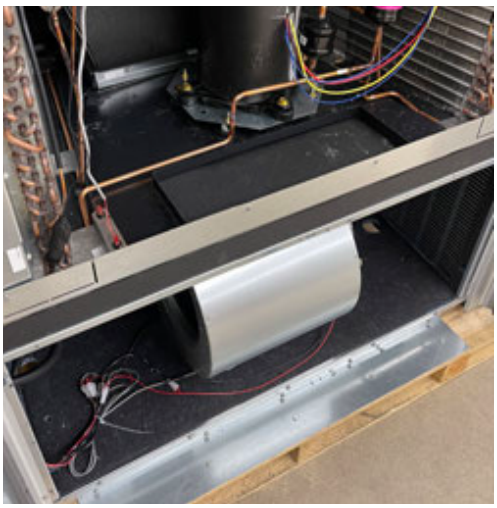
NOMINAL KW	AT 240V (1)				AT 208V (1)				AT 480V (2)			AT 460V (2)		
	KW	1-PH AMPS	3-PH AMPS	BTUH	KW	1-PH AMPS	3-PH AMPS	BTUH	KW	3-PH AMPS	BTUH	KW	3-PH AMPS	BTUH
4.0	4.0	16.7		13,700	3.0	14.4		10,200						
5.0	5.0	20.8	12.0	17,100	3.8	18.0	10.4	12,800						
6.0	6.0		14.4	20,500	4.5		12.5	15,400	6.0	7.2	20,500	5.5	6.9	18,800
8.0	8.0	33.3		27,300	6.0	28.8		20,500						
9.0	9.0		21.7	30,700	6.8		18.7	23,000	9.0	10.8	30,700	8.3	10.4	28,300
10.0	10.0	41.7		34,100	7.5	36.1		25,600						
15.0	15.0	62.5	36.1	51,200	11.3	54.1	31.2	38,400	15.0	18.0	51,200	13.8	17.3	47,100
18.0	18.0		43.3	61,400	13.5		37.5	46,100	18.0	21.7	61,400	16.6	20.8	56,500
20.0	20.0	83.3		68,300	15.0	72.1		51,200						

(1) Listed electric heaters are available for 230/208V units only.
(2) Listed electric heaters are available for 460V units only.

VENTILATION OPTION SELECTION CHART

VENT CODE	DESCRIPTION	VENT OPERATION
B	Blank-Off Plate	No ventilation air provided to the indoor area.
V	Commercial Room Ventilator	Intake damper includes damper actuator motor and solid-state board with user adjustable 0-10V ventilation amount. ECM exhaust fan with user adjustable CFM being exhausted from the room. Vent is capable of full rated outdoor air intake and meets or exceeds 4cfm/ft2 damper leakage requirements.
D	Economizer - No Controls	Intake damper includes damper actuator motor that can be operated with a field supplied control. ECM exhaust fan with user adjustable CFM being exhausted from the room. Vent is capable of full rated outdoor air intake and meets or exceeds 4cfm/ft2 damper leakage requirements.
Y	Economizer - JADE Control - Dry Bulb Operation	Intake damper includes damper actuator motor using JADE economizer control. ECM exhaust fan with user adjustable CFM being exhausted from the room. Vent is capable of full rated outdoor air intake and meets or exceeds 4cfm/ft2 damper leakage requirements. JADE monitors outdoor conditions using a dry bulb (temperature only) sensor.
Z	Economizer - JADE Control - Enthalpy Operation	Intake damper includes damper actuator motor using JADE economizer control. ECM exhaust fan with user adjustable CFM being exhausted from the room. Vent is capable of full rated outdoor air intake and meets or exceeds 4cfm/ft2 damper leakage requirements. JADE monitors outdoor conditions using a enthalpy (temperature and humidity) sensor.

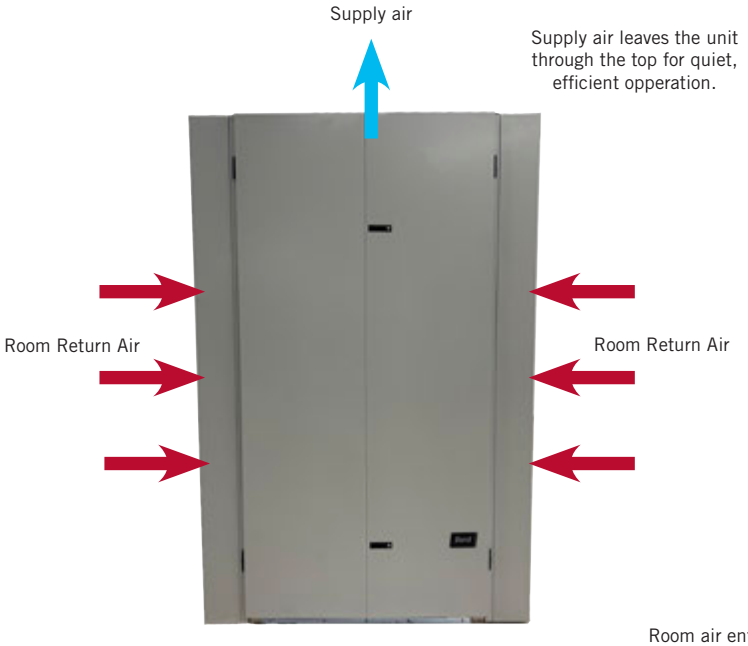
Blank-off plate



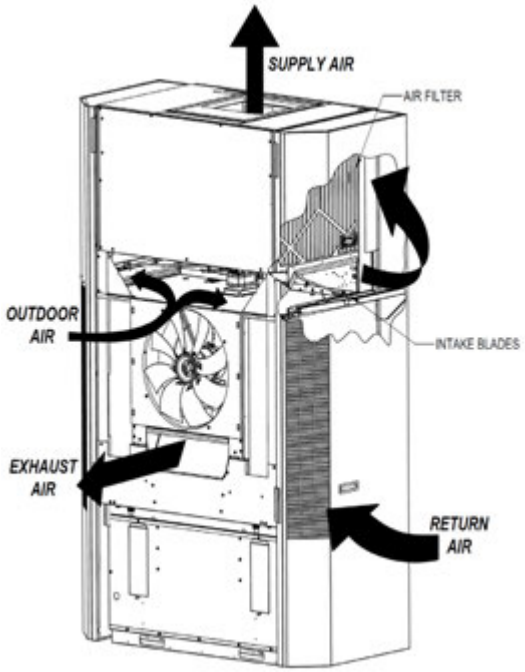
Economizer/CRV

UNIT AIRFLOW PATHS

Airflow Path Inside Room



Vent Airflow Path Inside Unit



Room air enters the back sides of the unit near the wall. This enhanced air path reduces sound levels in the room.

UNIT FILTER OPTIONS

Unit filter options for the Bard interior solutions provide multiple solutions for air filtration and indoor air quality improvement. Filter options allow for both room air passing through the unit and outdoor air provided by ventilation options to be cleaned before entering the indoor environment. Various filter types are available between MERV2 and MERV13 ratings. It is important to review application requirements, state and local codes, and ASHRAE recommendations to provide a clean, safe indoor area for occupants or heat generating equipment. Filter cleaning or replacement is an important part of ensuring that your Bard equipment is operating at optimal performance and indoor sound levels. A routine filter maintenance program based on room conditions is important, and higher MERV rated filters will normally require frequent filter changes. Filter trays are built into the unit with low filter bypass. Filter switch options are available that will help indicate when filter replacement or cleaning is necessary when used with a thermostat option to indicate filter change maintenance is needed.

"P" Filter Code Option – 2" Disposable MERV8 Filter
The 2" disposable pleated MERV8 filter is an optional feature on all models, and is normally used for moderate dust level areas where standard filtration is required. Media material is fiber based, provides high performance with an extended surface area that offers low-pressure drop. When maintenance is required, the filter is replaced. This option offers standard filtration, minimal air resistance, and average maintenance costs.

"M" Filter Code Option – 2" Disposable MERV11 Filter
The 2" disposable pleated MERV11 filter is an optional feature on all models, and is normally used for moderate to high filtration requirements. Media material is fiber based, provides high performance with an extended surface area that offers low-pressure drop. When maintenance is required, the filter is replaced. This option offers higher filtration, minimal air resistance, and average maintenance costs.

"N" Filter Code Option – 2" Disposable MERV13 Filter
The 2" disposable pleated MERV13 filter is an optional feature on all models, and is normally used for high filtration requirements. MERV13 filters are typically used where filtration of small particulates is required to offer a high level of indoor air quality. Often these filters are used in occupied areas including classrooms, gymnasiums, cafeterias, and other areas where filtration is at a high importance level. Media material is fiber based, provides high performance with an extended surface area that offers low-pressure drop. Filter replacement in 3-month or less intervals is recommended for the best filter and unit performance.

"A" Filter Code Option – 2" Disposable MERV13 Filter with UVC-LED Light
The 2" disposable pleated MERV13 filter is included with this option, and also a UVC-LED light used for disinfection. UVC-LED Light is a type of ultraviolet germicidal irradiation (UVGI) that disinfects the air through shortwavelength ultraviolet light. See UVC-LED Light specifications for further details.

FILTER REPLACEMENT PART NUMBER CHART

UNIT MODEL	FILTER CODE	FILTER MERV RATING	NUMBER OF FILTERS USED	BARD PART NUMBER	FILTER SIZE	FILTRATION LEVEL
ALL UNITS	**P**	**MERV 8**	1	7004-025	24 x 30 x 2	Average Filtration, 2" Thickness Pleated Disposable Media.
	M	**MERV 11**	1	7004-059	24 x 30 x 2	Above Average Filtration, 2" Thickness Pleated Disposable Media.
	N, A	**MERV 13**	1	7004-061	24 x 30 x 2	High Filtration, 2" Thickness Pleated Disposable Media.

/////// CABINET FINISHES, DOOR VINYL GRAPHICS AND CONSTRUCTION

Unit cabinet finish options provide a way to have the Bard I-Tec blend in with existing building colors, provide additional corrosion protection, or reduce unit product weight. Unit construction is comprised of a 20 gauge cabinet with 16 gauge structural components. Cabinet components are insulated with a non-fiberglass formaldehyde free insulation that has a high "R" value, is easy to clean with a FSK foil backing, and resists delamination.

Painted Steel Finish

This cabinet option uses zinc coated steel panels that are cleaned, rinsed, sealed and dried before a polyurethane primer is applied. The cabinet paint coating is comprised of a baked on textured enamel. The resulting finish is designed to withstand over 1000 hours of salt spray tests per ASTM B117-03.

The following painted steel colors are available:
"X" Cabinet Finish Option – Beige
"1" Cabinet Finish Option – White
"4" Cabinet Finish Option – Gray

X–*Beige*

1–*White*

4–*Buckeye Gray*

Door Vinyl Graphics Options

Unit cabinet graphics options provide a way to enhance the appearance of the unit.

The following vinyl graphics are available:
"X" No Graphics Option
"1" Vinyl Graphics Option – Books

1–*Books*

/////// EVAPORATOR COIL AND CONDENSER COIL COATINGS RESISTANCE LIST

The Technicoat AA coil coating provides a robust corrosion protection solution designed for indoor evaporator and outdoor condenser coils. Both field and lab testing results show no deterioration in harsh environments including refineries, mining operations, paper/pulp processing plants, and wastewater treatment facilities. ASTM B-117 testing includes over 10,000 hours with over 3,000 hours of SWAAT test time.

Chemical resistance includes the following:

- Alkalines including Ammonaic solution, Potassium Hydroxide, Calcium Hydroxide, and Magnesium Hydroxide.
- Alcohols including Isopropanol, Butanol, Amyl Alcohol, Benzyl Alcohol, Diaceton Alcohol, Glycerine, Propanol, and Pentanol
- Aliphatic Hydrocarbons including White Spirit, Shellsol, Bitumen, Isopar G, and Paraffin.
- Amines including Triethanolamine, Aniline Sulphate, Hexamethylenetetraamine, Phenyldiamine, Triethylamine, and Methylamine.
- Inorganic Compounds including Hydrogen Carbonate, Hydrogen Sulfide, Nitrous Acid, Sulphuric Acid, and Selenic Acid.
- Aromatic Hydrocarbons including Xylene, Toluene, Asphalt, Anthracene, Benzapherene, Gumlac, Benzine, and Naphtha.
- Fuels and Oils including Diesel, Fuel Oil, Petrol, Super Petrol, Lubricating Oils, Kerosene, Spheric Oils, LPG, and Mineral Oil.
- Ethers including Enthric Oils, Vegetable Oils, Butane, Acetylene, and Methane.
- Halogenated Hydrocarbons including Amyl Acetate, Propyl Acetate, Ethyl Oxalate, Butyl Acetate, and Butyl Propionate.
- Softeners including Palatinol C, Chloraparaffine 5XX, Dioctylphosphate, Desavin, Mesamol, and Dibutylphosphate.
- Organic Compounds including Benzoic Acid, Lactic Acid, Phenols, Fatty Acids, Malic Acid, and Picric Acid.
- Salts and water solutions including Sodium, Potassium, Calcium, Aluminum, Ammonium, Barium, Copper, Lead, and Lithium.
- Many other agents including Phosphor, Zinc, Glucose Syrup, Sulfur, Urea, Menthol, Antimony, Hydrogen, Rubber, and Shellac.

Special Properties:

- Anti-Odor
- Hydrophilic / Hydrophobic
- Anti-Corrosive

EXPOSURE CONDITIONS INCLUDE: Food Processing & Storage, Airports, Office Buildings, Hotels, Schools, Warehouses, Water Treatment, Breweries, Paper Mills, Refineries, Power Plants, Meat Processing Industries, Automotive Industries and other locations near shorelines, salt water and coastal applications.

Contact your local Bard distributor or representative for a list of all chemicals and additional chemical resistance information.

EVAPORATOR COIL, CONDENSER COIL, AND CABINET COATINGS

Unit condenser and evaporator coils are designed, manufactured, and tested by Bard. A rifled copper hairpin design provides enhanced unit performance when used with a stamped aluminum fin for excellent heat transfer. End plate design includes extruded collars for hairpin tube protection. All coils are pressure tested before use and leak tested after unit construction. A copper tube and aluminum fin design coil is easy to clean and maintain through the life of the unit.

"X" Code Option – Standard Evaporator and Condenser Coils

Standard products include a green protective coating applied to the aluminum fin stock used for the evaporator coil. The evaporator coil coating is hydrophilic (attracts water) and allows for proper condensate drainage along with mild corrosion protection. Resistance to corrosive agents include ammonia, sodium hydroxide, sodium chloride, acidic solutions and solvents. Condenser coil construction is a copper hairpin with aluminum fin design that is easy to clean and maintain.

Unit coating options are also available that offer additional corrosion protection to the unit cabinet. Applications where external or internal cabinet components will be exposed to extremely harsh environments require additional protection to copper, steel, and other materials.

"1" Code Option – Corrosion Resistance Coated Evaporator and Standard Condenser Coil

Option includes a Technicoat AA protective coating applied to the entire evaporator coil. This provides the best resistance to corrosive agents, and the coating process ensures the core of the aluminum fin pack is covered. Dehumidification units also include a dipped hot gas reheat coil. Standard condenser coil construction is a copper hairpin with aluminum fin design that is easy to clean and maintain. This option provides the best indoor coil protection when harmful chemicals or agents may be present in the indoor airstream. The exterior and interior unit cabinet is not coated with this option.

"2" Code Option – Standard Evaporator and Corrosion Resistance Coated Condenser Coil

Option includes a green protective coating applied to the aluminum fin stock used for the evaporator coil. The evaporator coil coating is hydrophilic (attracts water) and allows for proper condensate drainage along with mild corrosion protection. Resistance to corrosive agents include ammonia, sodium hydroxide, sodium chloride, acidic solutions and solvents. A Technicoat AA protective coating is applied to the entire condenser coil. This provides the best resistance to corrosive agents, and the coating process ensures the core of the aluminum fin pack is covered. This option provides the best outdoor coil protection when harmful chemicals or agents may be present in the outdoor airstream. Also provides a level of protection when units are installed in applications near salt water. The exterior and interior unit cabinet is not coated with this option.

"3" Code Option – Corrosion Resistance Coated Evaporator and Corrosion Resistance Coated Condenser Coil

Option includes a Technicoat AA protective coating applied to the entire evaporator coil. This provides the best resistance to corrosive agents, and the coating process ensures the core of the aluminum fin pack is covered. Dehumidification units also include a coated hot gas reheat coil. A Technicoat AA protective coating is applied to the entire condenser coil. This provides the best coil resistance to corrosive agents, and the coating process ensures the core of the aluminum fin pack is covered. The exterior and interior unit cabinet is not coated with this option.

I-TEC WALL SLEEVES, LOUVERS, COLORS

WALL SLEEVES (REQUIRED OPTION - SELECT ONE)

Sleeve Model #	Unit Compatability	Sleeve Height x Width	Wall Flange	4" Wall Adapter	Wall Depth with 1" Louver	Wall Depth with 2" Louver	Wall Depth with 4" Louver	Wall Depth with 8" Louver	Installation Instructions
IZWS-A	I36-I60	47.75 x 42.06	Out	No	5.5" - 8.5"	6.5" - 8.5"	NA	NA	2100-776
IZWS-B	I36-I60	47.75 x 42.06	Out	No	8.0" to 13.5"	9.0" to 13.5"	NA	NA	2100-776
IZWS-C	I36-I60	47.75 x 42.06	Out	No	13.0" - 23.5"	14.0" - 23.5"	NA	NA	2100-776

① Above table based on I-TEC unit being installed flush to inside of wall.

OUTDOOR LOUVER GRILLES (REQUIRED OPTION - SELECT ONE)

Louver Model #	** Louver Colors (See chart for details)	Louver Insert Depth	Louver Height x Width	Louver Flange	Blade Spacing	Blade Angle	Bird Screen	Specifications
ILS1-**	All Colors	1"	47.25" x 41.75"	2.18"	1"	45°	.5" Mesh	F1972
ILA2-**	All Colors	2"	47.25" x 41.75"	2.38"	1"	45°	.5" Mesh	F1971
ILST4-**	All Colors	3.68"	47.25" x 41.75"	2.68"	4"	MULTI	.5" Mesh	F1970

//////// I-TEC WALL SLEEVES, LOUVERS, COLORS (*CONT.*)

ADDITIONAL LOUVER COLORS AVAILABLE — APPLIES TO ILS, ILA AND ILST LOUVERS

-**Color Code	Material	Color	Finish	Louver Availability		
				ILS1	ILA2	ILST4
-10	Aluminum	Aluminum	Anodized	X	X	X
-20	Aluminum	Medium Bronze	Powder Coat	X	X	X
-30	Aluminum	Dark Bronze	Powder Coat	X	X	X
-12	Aluminum	Arctic White	Powder Coat	X	X	X
-14	Aluminum	Storm White	Powder Coat	X	X	X
-18	Aluminum	Milano Beige	Powder Coat	X	X	X
-32	Aluminum	Jet Black	Powder Coat	X	X	X
-36	Aluminum	Graphite Gray	Powder Coat	X	X	X
-40	Aluminum	School Bus Yellow	Powder Coat	X	X	X
-42	Aluminum	Florida Orange	Powder Coat	X	X	X
-44	Aluminum	School House Red	Powder Coat	X	X	X
-46	Aluminum	Chili Red	Powder Coat	X	X	X
-50	Aluminum	Deep Sea Blue	Powder Coat	X	X	X
-52	Aluminum	Bahama Blue	Powder Coat	X	X	X
-54	Aluminum	Ivy Green	Powder Coat	X	X	X
-56	Aluminum	Sage Green	Powder Coat	X	X	X
-**	Aluminum	Custom	Powder Coat	Per job basis and extended lead time. Contact Bard sales representative for details.		

② Available Special Order and requires additional lead-time. Reference Form S3508 for additional details.

- Custom Finishes are quoted on a project-by-project basis and pricing is determined by quantity, finish option and size.
- Custom Finishes are ordered/shipped directly from the louver supplier.
- Purchaser of Custom Finishes assumes liability for quantity, finish match and size.
- Contact your Bard Sales Representative for custom louver contact information.

//////// I-TEC ACCESSORIES — SUPPLY PLENUMS, HW COILS, EXTENSIONS & RISERS

DUCT FREE PLENUM BOX OPTIONS

Plenum Model #	Plenum Finish	Plenum Height	Supply Grille Color	Supply Air Grille Style	Supply Grille Locations	Hot Water Heating Coil	Installation Instructions
IPBDFZ12-*	Painted (-X,-1,-4)	12”	Black	Fixed Linear Pattern, Sides w/Shutoff Dampers	Front and Sides	No	7960-660
IPBDFZ18-*	Painted (-X,-1,-4)	18”	Black	Fixed Linear Pattern, Sides w/Shutoff Dampers	Front and Sides	No	7960-660

RISER PLATFORMS TO LIFT UNIT AND INCREASE SILL HEIGHT FOR WALL SLEEVE

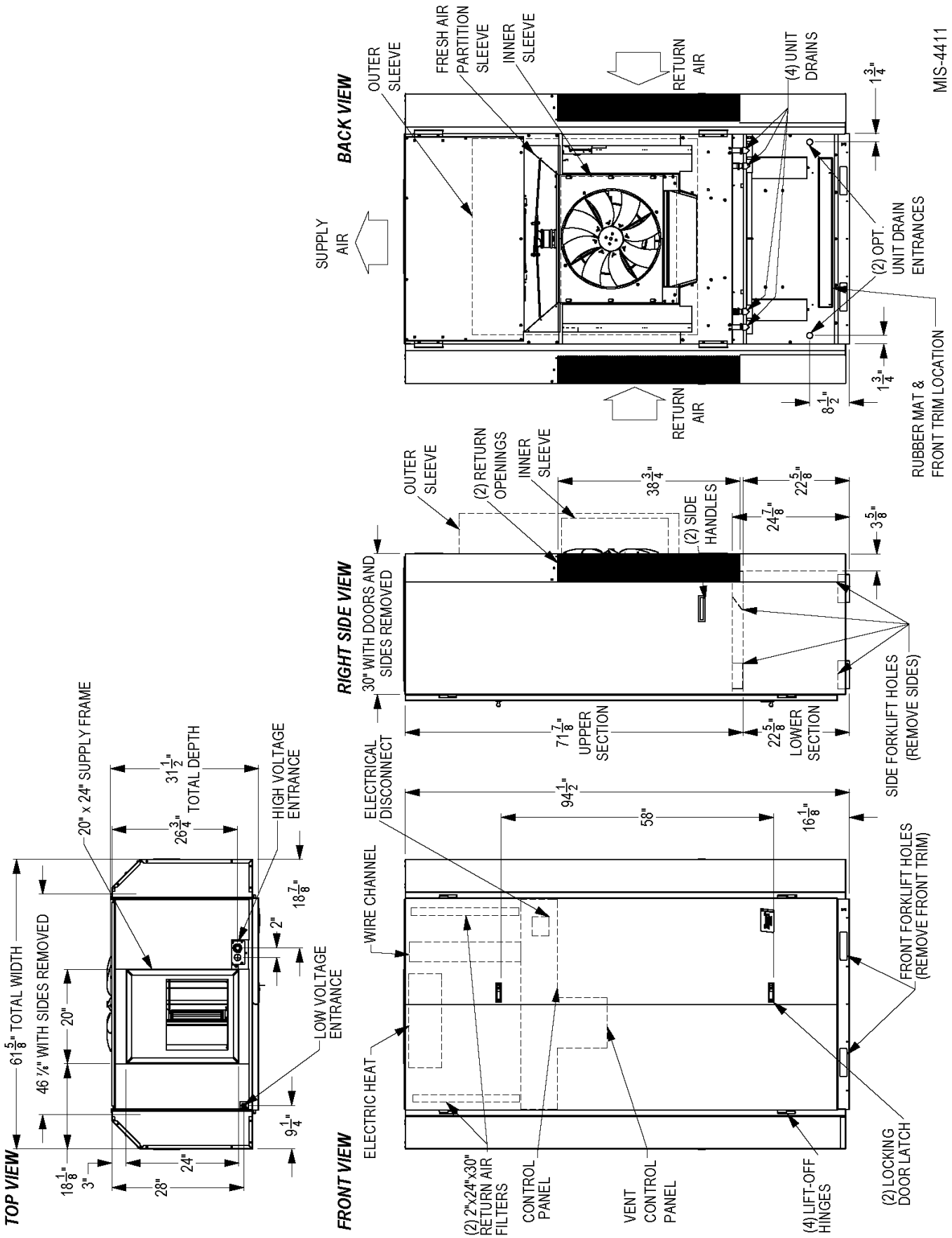
Riser Model #	Riser Finish	Riser Height	Riser Construction	Sleeve to Floor Sill Height	Unit with Riser Height	Installation Instructions
IRPZA-3-*	Galvanized riser with painted trim (-X,-1,-4)	3”	Base platform with rails. Dimples and brackets locate unit on riser. Not stackable.	31.5” - 34.5”	97.5”	7960-692
IRPZA-6-*	Galvanized riser with painted trim (-X,-1,-4)	6”	Base platform with rails. Dimples and brackets locate unit on riser. Not stackable.	34.5” - 37.5”	100.5”	7960-692
IRRZ-3-*	Rail replacement kit with painted trim (-X,-1,-4)	3”	Bottom Replacement rails. Trim pieces that extend from unit base to floor. Not stackable.	31.5” - 34.5”	97.5”	7960-927

FINISH TRIM KITS FOR TOP AND SIDES OF UNIT

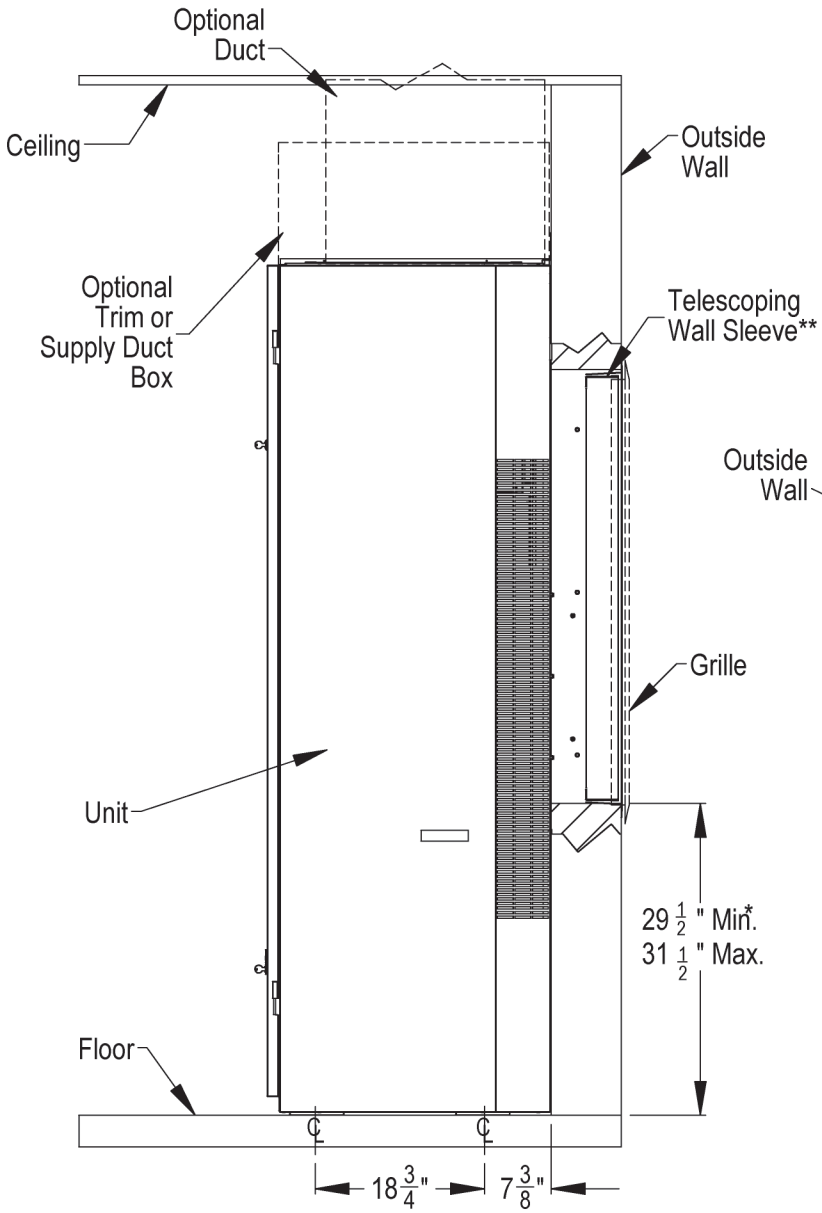
Trim Kit Model #	Kit Finish	Trim Install Location	Trim Height	Trim Depth	Installation Instructions
ICXZ28-*	Painted (-X,-1,-4)	Unit or Plenum Box Top to ceiling	Up to 28" for 10'-2" maximum ceiling height.	Front surface of unit to back of unit.	7960-655
ISTZ4-*	Painted (-X,-1,-4)	Back of unit to indoor wall	floor level to 12' maximum ceiling height.	4" to 4.3" between wall and unit side.	7960-678

MISCELLANEOUS ACCESSORIES

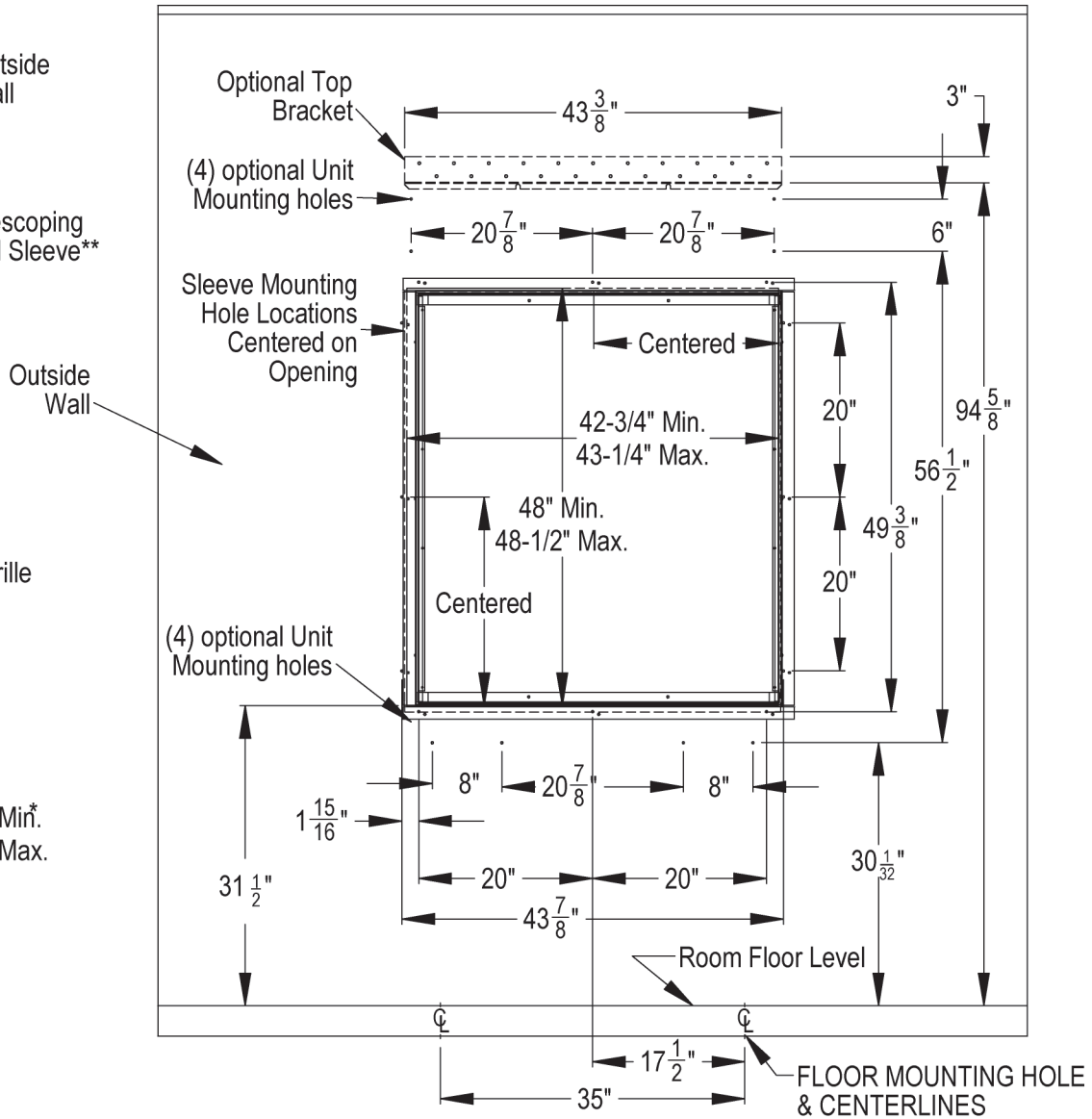
Model or Part #	Use	Description	Manual
921-0041	Exhaust Sleeve	Exhaust sleeve assembly used for IWS-A wall sleeve. This may be used when installation requires a field fabricated outer intake sleeve.	NA
921-0042	Exhaust Sleeve	Exhaust sleeve assembly used for IWS-B wall sleeve. This may be used when installation requires a field fabricated outer intake sleeve.	NA
921-0043	Exhaust Sleeve	Exhaust sleeve assembly used for IWS-C wall sleeve. This may be used when installation requires a field fabricated outer intake sleeve.	NA
8620-344	UV Light Kit	Kit to add UV light to indoor airstream. Includes light, wires required, and installation instructions.	7960-913
IDMCK	Door mounted thermostat kit.	Kit to mount a thermostat to the right side door. Includes wire harness for easy disconnection when removing door and installation instructions.	7960-806
AHCK-2A	Anti-Huffing Locking Caps	Kit to install locking anti-huffing caps on the refrigerant line service ports. Service ports are located behind unit front doors.	7960-716
SK111	Hard Start Kit 230V-1PH	Hard start kit for 230 Volt Single Phase units. Kit includes start relay, start capacitor, wires, wiring diagram, and installation instructions.	7960-573
SK118	Hard Start Kit 230V-3PH	Hard start kit for 230 Volt Three Phase units. Kit includes start relay, start capacitor, wires, wiring diagram, and installation instructions.	7960-573


TOP VIEW
61 5/8" TOTAL WIDTH
46 7/8" WITH SIDES REMOVED
20"
18 1/8"
3"
28"
24"
9 1/4"
20" x 24" SUPPLY FRAME
31 1/2" TOTAL DEPTH
26 3/4"
HIGH VOLTAGE ENTRANCE
18 7/8"
2"
LOW VOLTAGE ENTRANCE
FRONT VIEW
ELECTRIC HEAT
WIRE CHANNEL
ELECTRICAL DISCONNECT
94 1/2"
58"
16 1/8"
FRONT FORKLIFT HOLES (REMOVE FRONT TRIM)
(2) 2"x24"x30" RETURN AIR FILTERS
CONTROL PANEL
VENT CONTROL PANEL
(4) LIFT-OFF HINGES
(2) LOCKING DOOR LATCH
RIGHT SIDE VIEW
30" WITH DOORS AND SIDES REMOVED
OUTER SLEEVE
(2) RETURN OPENINGS
INNER SLEEVE
38 3/4"
(2) SIDE HANDLES
24 7/8"
22 5/8"
3 5/8"
71 7/8" UPPER SECTION
22 5/8" LOWER SECTION
SIDE FORKLIFT HOLES (REMOVE SIDES)
BACK VIEW
SUPPLY AIR
OUTER SLEEVE
FRESH AIR PARTITION SLEEVE
INNER SLEEVE
RETURN AIR
(4) UNIT DRAINS
1 3/4"
(2) OPT. UNIT DRAIN ENTRANCES
RETURN AIR
8 1/2"
1 3/4"
RUBBER MAT & FRONT TRIM LOCATION
MIS-4411

Wall Section View



Right Side View

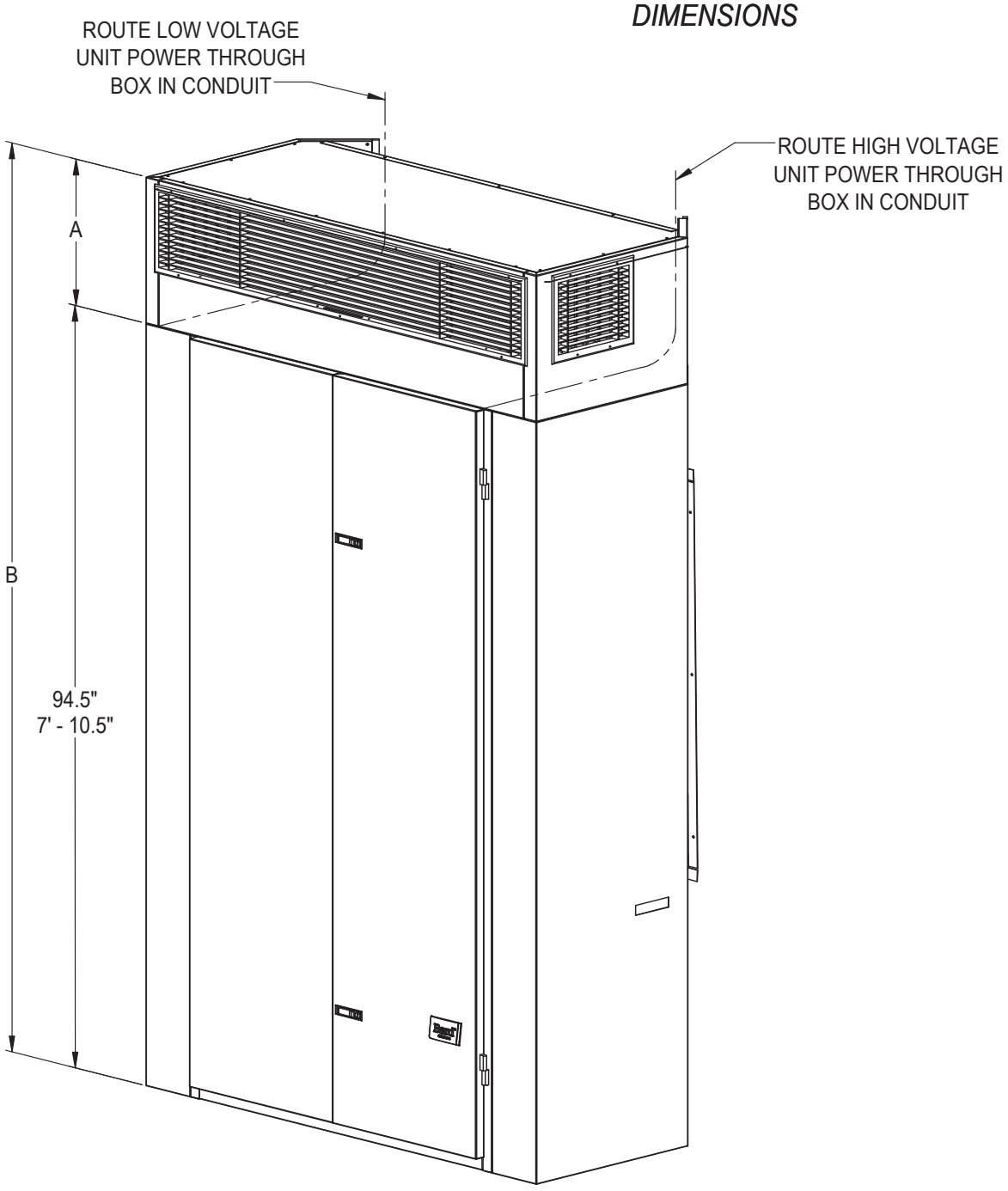


Front (Wall Only) View

* Higher Sill Heights Acheivable With Base Kit.
** Separate telescoping sleeves available for different wall thicknesses.

FORM NO. S3460-1123 • SUPERSEDES 0323

IPBDFZ12 AND IPBDFZ18 DUCT-FREE PLENUM BOX DIMENSIONS



DIMENSIONAL CHART		
MODEL NO.	DIM. A	DIM B.
IPBDFZ12	12"	106.5" (8'-10.5")
IPBDFZ18	18"	112.5" (9'-4.5")

MIS-3168 A

FACTORY BUILT-IN ELECTRIC HEAT TABLE

Model	Voltage	Phase	KW		Amps		BTUH	
			240	208	240	208	240	208
-A04	240/208	1	4.0	3.0	16.7	14.4	13,700	10,200
-A05	240/208	1	5.0	3.8	20.8	18.0	17,100	12,800
-A10	240/208	1	10.0	7.5	41.7	36.1	34,100	25,600
-A15	240/208	1	15.0	11.3	62.5	54.1	51,200	38,400
-A20	240/208	1	20.0	15.0	83.3	72.1	68,300	51,200
-B06	240/208	3	6.0	4.5	14.4	12.5	20,500	15,400
-B09	240/208	3	9.0	6.8	21.7	18.7	30,700	23,000
-B15	240/208	3	15.0	11.3	36.1	31.2	51,200	38,400
-B18	240/208	3	18.0	13.5	43.3	37.5	61,400	46,100

Model	Voltage	Phase	KW		Amps		BTUH	
			480V	460V	480V	460V	480V	460V
-C06	480	3	6.0	5.5	7.2	6.9	20,500	18,800
-C09	480	3	9.0	8.3	10.8	10.4	30,700	28,300
-C15	480	3	15.0	13.8	18.0	17.3	51,200	47,100
-C18	480	3	18.0	16.6	21.7	20.8	61,400	56,500

NOTE: Not all KW's available in all models.