

Hazardous Location Room Air Conditioners

UL LISTED

For CLASS 1, DIV 2, GROUPS A, B, C and D.
& for Class 2, Division 2, Groups F & G

ATEX/IECEX CERTIFIED

Models for Zones 2, 22

CERTIFIED in accordance with
ISA 12.12.01 and NFPA 70
(NATIONAL ELECTRIC CODE),
ANSI/UL 484 Room Air Conditioners
KSA REGISTERED and TESTED in
accordance with SASO 2681



FRIEDRICH

1883

Hazardgard[®]

Engineered to Perform in the Harshesht Conditions



50 | 60
HERTZ

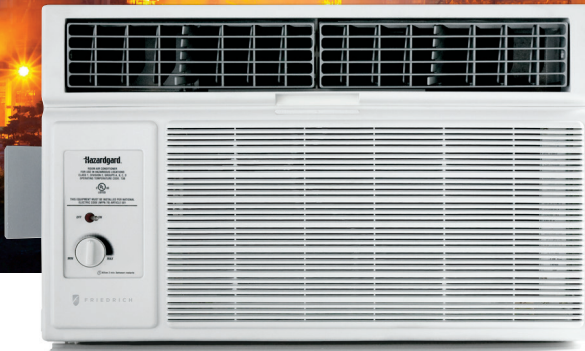
THE EXPERTS IN ROOM AIR CONDITIONING

Hazardgard®

Engineered to Perform in the Harshest Conditions

Hazardgard meets T4 temperature classification

- Unit surface temperatures will not rise above 135° C/275° F.
NOTE: 50/60Hz model listed as T4A for surface temperatures to 120° C/248° F.
- Operates at low ambient conditions without freezing at outdoor ambient temperatures as low as 7° C/45° F.
- Tolerates higher outdoor temperatures up to 55° C /130° F.



Specifically designed to cool living quarters, storage areas and other enclosures situated in hazardous locations; where specific volatile flammable liquids or gases are handled or used within enclosed containers or systems.

HAZARDGARD IS RATED FOR THESE CONDITIONS

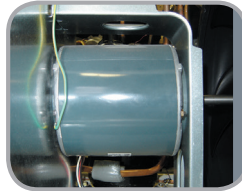
Hazardgard Models	GASES										
	NFPA 70						Atex/IEC Ex				
			ARTICLE 501		ARTICLE 505						
	Class	Division	Group	Temperature Classification	Zone	Group	Type of Protection "n" (non--sparking)	Type of Protection "i" (Intrinsic Safety)	Typical IEC EPL	Typical Zones	Temperture Classification
1	2	A	T4 / T4A*		2	IIC	nC	ic	Gc	2	T4 / T4A*
		B			2	IIB					
		C			2	IIB					
		D			2	IIA					
SH15M30A	YES						N/A				
SH20M30B	YES						N/A				
SH20N50	YES						YES				
SH24N20	YES						YES				
Hazardgard Models	DUSTS										
	NFPA 70						Atex/IEC Ex				
			ARTICLE 502		ARTICLE 506						
	Class	Division	Group	Temperature Classification	Zone	Group	Type of Protection "n" (non--sparking)	Type of Protection "i" (Intrinsic Safety)	Typical IEC EPL	Typical Zones	Temperture Classification
2	2	F	T4 / T4A*		22	IIIB	nC	ic	Dc	22	T4 / T4A*
		G			22	IIIB					
SH15M30A	N/A						N/A				
SH20M30B	N/A						N/A				
SH20N50	YES						YES				
SH24N20	YES						YES				

* T4A Temperature classification for dual frequency (50 / 60 Hz) model - SH24N20

For global applications, Hazardgard cooling capacities are tested in a certified laboratory at moderate (T1*) and hot (T3*) climate conditions in accordance with SASO (Saudi Arabian Standards Organization) Standard 2681. SASO Standard 2681 is adopted from ISO Standard 5151 for testing and rating for performance of non-ducted air conditioners and heat pumps.

Features

- Permanent split capacitor motor
- Hermetically sealed reciprocating compressor is cooled during the refrigeration cycle, which allows the unit to tolerate higher outdoor temperatures up to 130° F (55°C)
- Environmentally sealed on/off switch and gold plated contacts in thermostat for corrosion resistance
- Solid-state control relays for compressor and fan operation
- Hot gas bypass allows the air conditioner to operate at low ambient conditions without freezing at outdoor temperatures as low as 45° F (7°C)
- Larger, commercial grade, enclosed fan motor with hermetically sealed overload for arc-free operation. Totally enclosed to assure efficient operation under adverse electrical conditions
- Unit utilizes field supplied, direct-wired, 15-amp circuit with time-delay fuse that will tolerate current surge without tripping the breaker
- 22-gauge, G60 steel air conditioner cabinet is powder coated for corrosion protection and to withstand years of hard use
- High density EPS foam insulation for thermal resistance and sound control
- Heavy duty, honeycomb matrix packaging resists damage during shipment and is environmentally friendly



Coils coated for corrosion resistance

MODEL SH24N20

ElectroFin® 5-stage, immersion **ecoat** process on 100% of metallic surfaces on the outdoor coil provides outstanding corrosion resistance protection in coastal or corrosive environments

ELECTROFIN BENEFITS:

- Excellent adhesion characteristics
- Less than 1% thermal degradation
- Outstanding chemical resistance
- Passed 6048 hrs.ASTM B-117 Salt Spray

ELECTROFIN MEETS THE FOLLOWING:

- MIL-C-46168 Chemical Agent Resistance -DS2, HCl Gas
- CID A-A-52474A (GSA)
- MIL-STD 810F, Method 509.4 (Sand and Dust)
- MIL-P-53084 (ME)-TACOM Approval
- MIL-DTL-12468 Decontamination Agent (STB)
- DPG (Douglas Proving Grounds) Soil & Water Exposure Tests
- GM9540P-97 Accelerated Corrosion Test (120 cycles)
- ASTM B117-G85 Modified Salt Spray (Fog) Testing-2,000 hours
- ASTM B117 Salt Spray (tested by ARL for Lockheed Martin)

MODELS SH15M30A, SH20M30B, SH20N50

Diamonblue Advanced Corrosion Protection® on the outdoor coil protects the coil against deterioration and extends the life of the unit especially in coastal or corrosive environments.

5-STAGE **ecoat** Corrosion Protection



DIAMONBLUE Advanced Corrosion Protection®



Built to perform in the harshest environments

- Offshore oil rigs, on-shore oil company offices and refineries
- Petrochemical sites and propane fill-up stations
- Paint and varnish storage or processing plants
- Grain alcohol processors or storage sites
- Plant areas using strong solvents or chemicals
- Munitions plants or armories
- PVC or plastics plants and processing points
- Recycling plants
- Furniture refinishing/stripping workshops
- Fertilizer plants
- Office complexes where methane is a by-product
- Hazardous materials storage

SPECIFICATIONS

Model	Electrical Characteristics				Circuit Rating Breaker or T - D Fuse Volts - Amps	Energy Efficiency Ratio EER	Moisture Removal Pints/ HR	Air Circulation CFM	Refrigerant
	Cooling Capacity Btu/Hr.	Volts Rated	Cooling Amps	Cooling Watts					
60 HERTZ									
SH15M30A	14500/14000	230/208	6.9/7.5	1495/1443	250V-15	9.7/9.7	4.0	375	R-410A
SH20M30B	19000/19000	230/208	8.5/9.4	1965/1970	250V-15 (230V) 250V-20 (208V)	9.7/9.6	5.5	375	R-410A
SH24N20	24000/23700	230/208	12.6/13.5	2727/2788	250V-30	8.8/8.5	8.0/7.5	385	R-401A
50 HERTZ									
SH20N50	19500/19100	240/220	9.8/10.3	2167/2156	250V-15	9.0/9.0	5.6/5.5	425	R-410A
SH24N20	21000/20500	240/220	15.0/13.2	2600/2412	250V-30	8.1/8.5	7.0/7.0	360	R-410A

INSTALLATION INFORMATION

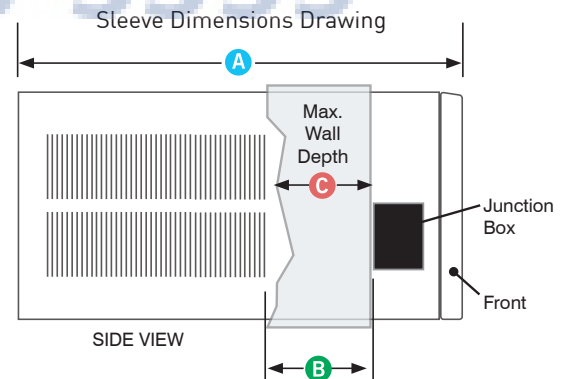
Model	Dimensions INCHES						Window Width INCHES		In-Wall Installation Finished Hole INCHES			Weight Lbs.	
	Height	Width	Depth with Front A	Depth J Box to Louvers B	Minimum Extension Into Room	Minimum Extension Outside	Min.	Max.	Height	Width	Max. Depth C	Net	Shipping
SH15M30BA	15 15/16"	25 15/16"	27 3/8"	6"	3 1/16"	16 15/16"	27 7/8"	42"	16 3/16"	26 3/16"	6"	140	167
SH20M30B	17 15/16"	25 15/16"	27 3/8"	6"	3 1/16"	16 15/16"	27 7/8"	42"	18 3/16"	26 3/16"	6"	166	170
SH20N50	17 15/16"	25 15/16"	27 3/8"	6"	3 1/16"	16 15/16"	27 7/8"	42"	18 3/16"	26 3/16"	6"	171	175
SH24N20	17 15/16"	25 15/16"	27 3/8"	6"	3 1/16"	16 15/16"	27 7/8"	42"	18 3/16"	26 3/16"	6"	180	185

Due to continuing engineering research and technology, specifications are subject to change without notice. Manufactured under U.S. Design Patent DES 368, 306 decorative front; Utility Patent 5, 622, 058. MAXIMUM outdoor ambient operating temperature is 130°F. (55°C) MAXIMUM TEMPERATURE RATING FOR CLASS I, DIVISION 2, GROUPS A,B,C,D.

* Capacity and efficiency values at each climate conditions are available upon request.

NOTE: Hazardgard unit must be hard-wired.

800-570-3355



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