

# Hazardous Location Room Air Conditioners

## UL LISTED

For CLASS 1, DIV 2, GROUPS A, B, C and D.

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

## UPCOMING MODELS

For CLASS 1, DIV 2, GROUPS A, B, C and D,  
CLASS 2, DIV 2, GROUPS F,G &  
ATEX/IECEX CERTIFIED



Ex nA nC IIC T4 Gc



II 3 G nA nC IIC T4 Gc



**FRIEDRICH**

1883

## Hazardgard<sup>®</sup>

Engineered to Perform in the Harshest Conditions



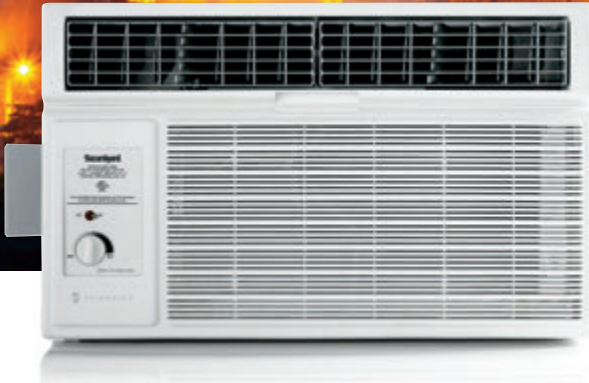
50|60  
HERTZ

# Hazardgard®

Engineered to Perform in the Harshest Conditions

## Hazardgard meets T4 temperature classification

- Unit surface temperatures will not rise above 135° C/275° 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 laboratories, control rooms, 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					
	ARTICLE 501				ARTICLE 505	
	Class	Division	Group	Temperature Classification	Zone	Group
SH15M30A SH20M30B SH20M50A SH24M20	1	2	A	T4	2	IIC
			B		2	IIB
			C		2	IIB
			D		2	IIA

## UPCOMING MODELS

### SH20N50, SH24N20

Estimated availability May 2015

UL testing scheduled for March 2015.

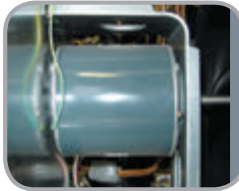
Upcoming Hazardgard Models  SH20N50 SH24N20	Class 1 Div. 2 Groups A, B, C and D	Class 2 Div. 2, Groups F & G		Ex nA nC IIC T4 Gc
			 	II 3 G nA nC IIC T4 Gc

Upcoming 50/60Hz model SH24N20 is listed as T4A for surface temperatures to 120° C/248° F.

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 with stainless steel shaft
- 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 circuit
- 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 SH24M20

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)

#### 5-STAGE ecoat Corrosion Protection



### MODELS SH15M30A, SH20M30B, SH20M50A

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.

#### 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

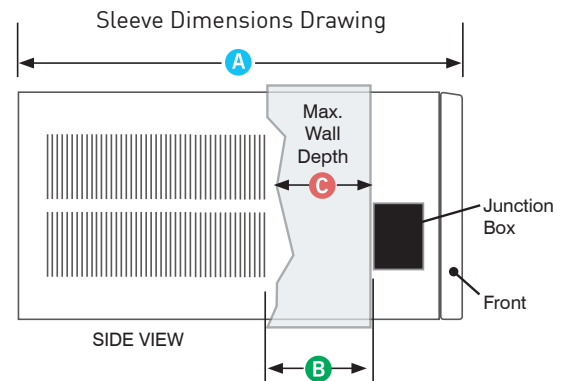
Model	Electrical Characteristics				Circuit Rating Breaker or T - D Fuse Volts - Amps	Energy Efficiency Ratio EER	Moisture Removal Pints/ HR	Air Circulation CFM	Refrigerant
	Cooling Capacity Btu/Hr.	Volts Rated	Cooling Amps	Cooling Watts					
60 HERTZ									
SH15M30A	14500/14000	230/208	6.9/7.5	1495/1443	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
SH24M20/SH24N20*	24000/23700	230/208	12.6/13.5	2727/2788	250V-20	8.8/8.5	8.0/7.5	385	R-410A
50 HERTZ									
SH20M50A/SH20N50*	19500/19100	240/220	9.8/10.3	2167/2156	250V-20	9.0/9.0	5.6/5.5	425	R-410A
SH24M20/SH24N20*	21000/20500	240/220	15.0/13.2	2600/2412	250V-20	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
SH20M50A/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
SH20M20/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.

\* Accepting preorders. Estimated availability May 2015. UL testing scheduled for March 2015. Capacity and efficiency values at each climate conditions are available upon request. NOTE: Hazardgard unit must be hard-wired.



Friedrich Air Conditioning Co. | 10001 Reunion Place, Suite 500 | San Antonio, TX 78216 | 877.599.5665 | www.friedrich.com

