HAZARDGARD®

Hazardous Location Room Air Conditioners

Engineered to perform in the harshest condition.

FRIEDRICH
1883

50/60
HERTZ

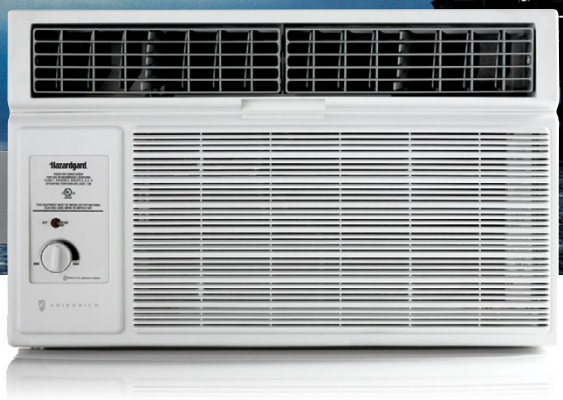
UL LISTED for CLASS 1, DIV 2, GROUPS A, B, C and D.

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

THE EXPERTS IN ROOM AIR CONDITIONING

Hazardgard®

Engineered to perform in the harshest conditions.



WATCH VIDEO ON
HAZARDGARD®
APPLICATIONS

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.

For more than 30 years, industrial professionals have trusted Hazardgard to deliver safe and reliable cooling in the most extreme conditions. Hazardgard is 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:

Model	Hazardous Location Classification: Gases
SH15M30A SH20M30SA SH20M30B SH20M50B SH24N30A	National Electrical Code, NFPA 70 ARTICLE 501: Class 1, Division 2, Group A / B / C / D , Temperature Class T4 ARTICLE 505: Class 1, Zone 2, Group II C / IIB / II A , Temperature Class T4

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. Model SH20M30SA is KSA Registered in accordance with SASO2681 and meets SASO 2663 Energy Efficiency standard.*

The Friedrich Advantage Reliable Design Backed by Robust Engineering

Quality
Friedrich is an established player in the air conditioning industry and is known for manufacturing quality products.

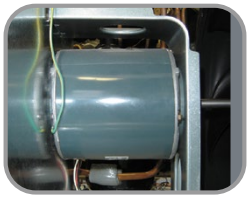
Product Reliability
Used across the globe, Hazardgard is a tested and reliable product and not a quick-fix, job shop alteration.

Durability
Robust engineering, commercial grade components and extensive field testing provide the durability and safety required in hazardous locations.

Availability
Off the shelf models allow for efficient manufacturing, shorter lead times and standardized component parts.

DURABILITY & RELIABILITY

- **Permanent split capacitor motor**
- **Hermetically sealed refrigeration system**
- **Environmentally sealed on/off switch and gold plated contacts** in thermostat for corrosion resistance
- **Solid-state control relays** for compressor and fan operation
- **Commercial grade, enclosed fan motor with hermetically sealed overload** for arc-free operation
- **Direct-wired** (field supplied), 15-amp circuit with time delay fuse that will tolerate current surge without tripping the breaker
- **Powder Coated 22-gauge, G60 steel air conditioner cabinet** for corrosion protection and to withstand years of hard use
- **Stainless Steel Fan Shaft**
- **Coated Coils** for Corrosion Protection



COATED COILS FOR CORROSION RESISTANCE

- ElectroFin® 5-stage, immersion ecoat process, or Diamonblue Advanced Corrosion Protection® on 100% of metallic surfaces on the outdoor coil provides outstanding corrosion resistance protection and extends the life of the unit, especially in coastal or corrosive environments.

Diamonblue Advanced Corrosion Protection®

- STANDARD ON ALL MODELS (except SH24N30A, see below)
- Anti-corrosive, hydrophilic coating

DIAMONBLUE
Advanced Corrosion Protection®

ElectroFin® 5-stage, Immersion Ecoat Benefits:

MODEL SH24N30A ONLY

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

5-STAGE **ecoat**
Corrosion Protection

MEETS THE FOLLOWING:

- MIL-C-46168 Chemical Agent Resistance
  -DS2, HCI 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)

PERFORMANCE IN EXTREME CONDITIONS

- **Hot gas bypass** for cooling operation at low ambient temperatures, down to 45°F / 7°C without freezing
- **Designed to tolerate high ambient temperatures,** allowing units to operate in T3 conditions

Engineered to perform in the harshest environments

- Offshore oil rigs, on-shore oil company offices and refineries
- Petrochemical sites
- 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 workshops
- Office complexes where methane is a by-product
- Hazardous materials storage

SPECIFICATIONS

Model	Cooling Capacity Btu/Hr.	Electrical Characteristics: Volts Rated	Electrical Characteristics: Cooling Amps	Electrical Characteristics: Cooling Capacity (KW)	Circuit Rating Breaker or T - D Fuse Volts - Amps	Energy Efficiency Ratio EER	Moisture Removal Pints/ Hr	Air Circulation CFM	Refrigerant
	60 HERTZ								
SH15M30A	15700/15700	230/208	7.9/7.8	4.60/4.10	250V-15	9.7/9.7	4.0	375	R-410A
SH20M30B	21000/21000	230/208	10.5/9.4	6.15/6.15	250V-15 (230V) / 250V-20 (208V)	9.7/9.6	5.5	375	R-410A
SH20M30SA	19000/19000	220	8.5	5.57	250V-20 (230V) / 250V-20 (208V)	9.7/9.6	5.5	375	R-410A
SH24N30A	24000/24000	230/208	11.8	6.8	250V-20	9.7/8.5	8.0/7.5	385	R-410A
	50 HERTZ								
SH20M50B	21000/19100	240/220	11.6/10.3	6.15/6.15	250V-15	8.8/8.8	7.0/7.0	425	R-410A

INSTALLATION INFORMATION

Model	Dimensions Inches: Height	Width	Depth with Front A	Depth J Box to Louvers B	Minimum Extension Into Room	Minimum Extension Outside	Window Width Inches: Min.	Max.	In-Wall Installation Finished Hole Inches: Height	Width	Max. Depth C	Weight Lbs.: Net	Shipping
SH15M30A	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
SH20M30SA	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
SH20M50B	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
SH24N30A	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.

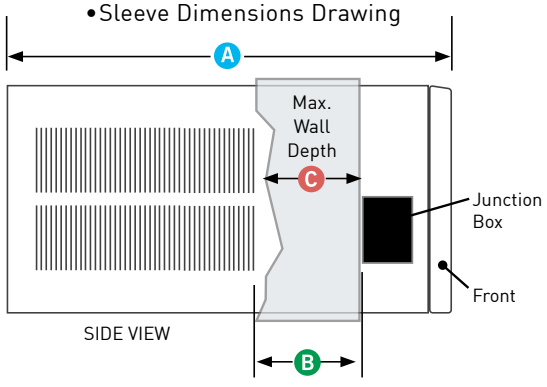
U.S. MAXIMUM outdoor ambient operating temperature is 115°F. (46°C) MAXIMUM TEMPERATURE RATING FOR CLASS 1, DIVISION 2, GROUPS A, B, C, D.

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

NOTE: Hazardgard unit must be hard-wired.

Manufactured under Design Patent DES 368, 306 decorative front; Utility Patent 5, 662, 058.

•Sleeve Dimensions Drawing



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FRIEDRICH

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