

# ENGINEERED

## FOR THE WORLD'S TOUGHEST ENVIRONMENTS



### HAZARDGARD® AIR CONDITIONERS

50 HZ | 60 HZ

ATEX Certified,  
II 3 G Ex nA nC IIC T4 Gc

IECEx Certified,  
Ex ec nA nC II C T4 Gc

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

 **FRIEDRICH**  
DELIVERING BOLDLY CRAFTED COMFORT



# 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.



## The Friedrich Advantage

### RELIABLE DESIGN BACKED BY ROBUST ENGINEERING

For almost 40 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.



#### Quality

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



#### Product Reliability

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



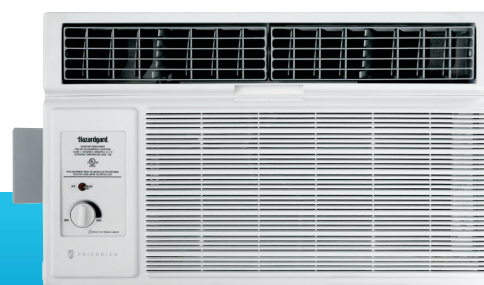
#### Durability

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.



### HAZARDGARD® IS RATED FOR THESE CONDITIONS:

| Model                  | Hazardous Location Classification: Gases  |  |
|------------------------|---|--|
| SH20N50AT<br>SH24N30AT | ATEX,   II 3 G Ex nA nC IIC T4 Gc<br>IECEX, Ex ec nA nC IIC T4 Gc | National Electrical Code, NFPA 70<br>ARTICLE 501: Class 1, Division 2, Group A/B/C/D,<br>Temperature Class T4/T4A*<br>ARTICLE 505: Class 1, Zone 2, Group II C/ II B/ II A,<br>Temperature Class T4/T4A* |
|                        |    |  |

## 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
- Steel enclosure for solid state relays
- Sealed control enclosure for thermostat and on-off control
- Durable outdoor industrial electrical cable harnesses and cable glands

## 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

#### MODEL SH20N50AT

- Anti-corrosive, hydrophilic coating

### ElectroFin® 5-stage, Immersion Ecoat Benefits:

#### MODEL SH24N30AT

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

#### 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)

**DIAMONBLUE™**  
Advanced Corrosion Protection

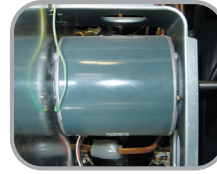


5-Stage ecoat  
Corrosion  
Protection



## 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



Commercial grade  
enclosed fan motor



Steel enclosure for  
solid state relays



Industrial cable harnesses  
& cable glands



Molded compressor  
plug harnesses

## Trusted to perform in these applications




- 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

# Hazardgard®

## Model Information

### SPECIFICATIONS

| Model                         | Cooling Capacity (Btu/Hr.) | Volts Rated | Cooling Amps | Cooling Capacity (KW) | Energy Efficiency Ratio EER | Moisture Removal Pints/ HR | Air Direction Controls | Air Circulation (CFM) | Refrigerant |
|-------------------------------|----------------------------|-------------|--------------|-----------------------|-----------------------------|----------------------------|------------------------|-----------------------|-------------|
| <b>60 HERTZ - PERFORMANCE</b> |                            |             |              |                       |                             |                            |                        |                       |             |
| SH24N30AT                     | 23,500/23,700              | 230/208/60  | 11.8/13.5    | 7.03/6.95             | 9.7/9.7                     | 8.0/7.5                    | 8-way                  | 385                   | R-410A      |
| <b>50 HERTZ - PERFORMANCE</b> |                            |             |              |                       |                             |                            |                        |                       |             |
| SH20N50AT                     | 19,500/19,100              | 240/220/50  | 9.8/10.3     | 5.72/5.60             | 9.0/9.0                     | 5.6/5.5                    | 8-way                  | 425                   | R-410A      |

| Model                  | Hazardous Location Classification: Gases  |  |
|------------------------|---|--|
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|                        |    |  |

### INSTALLATION INFORMATION

| Model     | Dimensions Inches |           |                           |                                 |                             |                           | Window Width Inches |      | In-Wall Installation Finished Hole Inches |          |                     | Circuit Rating Breaker or T - D Fuse | Weight Lbs.  |     |
|-----------|-------------------|-----------|---------------------------|---------------------------------|-----------------------------|---------------------------|---------------------|------|---|----------|---------------------|--------------------------------------|--------------|-----|
|           | Height            | Width     | Depth with Front <b>A</b> | Depth J Box to Louvers <b>B</b> | Minimum Extension Into Room | Minimum Extension Outside | Min.                | Max. | Height                                    | Width    | <b>C</b> Max. Depth |                                      | Volts - Amps | Net |
| SH24N30AT | 17 15/16"         | 25 15/16" | 27 3/8"                   | 4 7/8"                          | 3 1/16"                     | 16 15/16"                 | 27 7/8"             | 42"  | 18 3/16"                                  | 26 3/16" | 6"                  | 250V-30                              | 180          | 185 |
| SH20N50AT |                   |           |                           |                                 |                             |                           |                     |      |   |          |                     | 250V-15                              | 171          | 175 |

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, 662, 058. MAXIMUM outdoor ambient operating temperature is 130°F. (55°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.

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.

