

# Hazardgard® Hazardous Location ROOM AIR CONDITIONERS

| PURCHASER    | P.O. #       | DATE          |
|--------------|--------------|---------------|
|              |              |               |
| PROJECT      | LOCATION     |               |
|              |              |               |
| ENGINEER     | ARCHITECT    |               |
|              |              |               |
| SUBMITTED BY | FOR APPROVAL | FOR REFERENCE |
|              |              |               |

| ITEM | PLAN DESIGNATION | QUANTITY | COOLING BTU/H | VOLTAGE | FRIEDRICH MODEL |
|------|------------------|----------|---------------|---------|-----------------|
|      |                  |          |               |         |                 |
|      |                  |          |               |         |                 |
|      |                  |          |               |         |                 |
|      |                  |          |               |         |                 |
|      |                  |          |               |         |                 |

## 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\*

### FEATURES

- Direct wire connection
- Utilizes direct-wired, 15-amp circuit with time-delay fuse
- Hermetically sealed refrigeration system
- 22 gauge steel cabinet
- Larger, commercial grade fan motor with hermetically sealed overload for arc-free operation
- Permanent split capacitor and totally enclosed fan motor
- Enclosed fan motor has hermetically sealed overload for arc-free operation
- Stainless steel fan shaft
- 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

### COILS COATED FOR CORROSION RESISTANCE

### MODEL SH24N30A

• ElectroFin<sup>®</sup> 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, 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)

# MODELS SH15M30A, SH20M30B, SH20M30SA, SH20M50B,

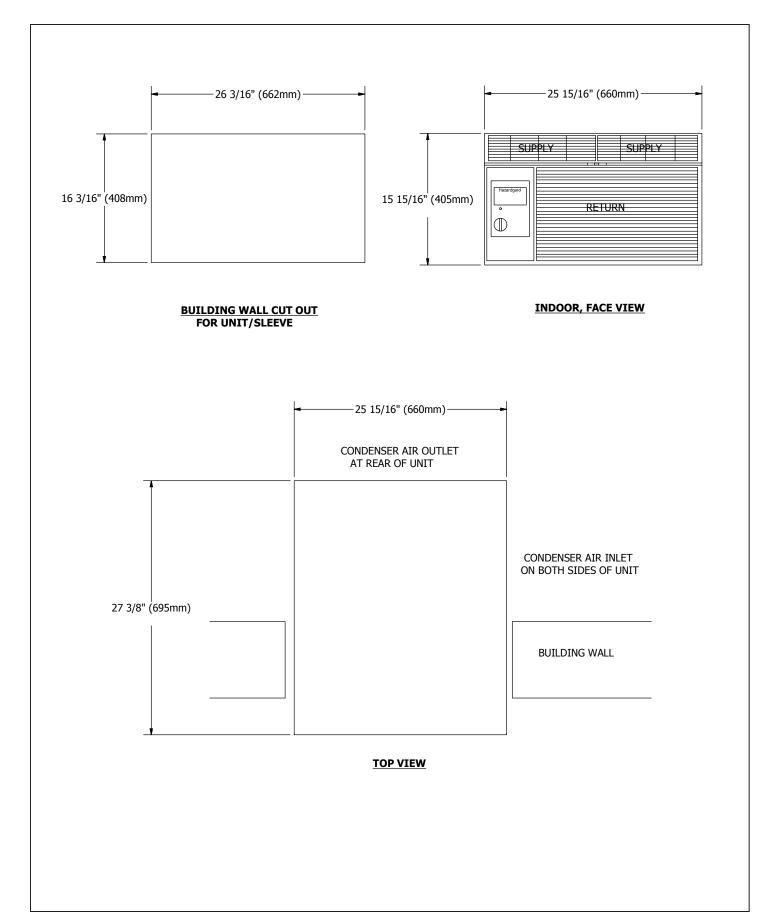
Diamonblue<sup>™</sup> Advanced Corrosion Protection on the outdoor coil protects the coil against deterioration and extends the life of the unit especially in coastal or corrosive environments.





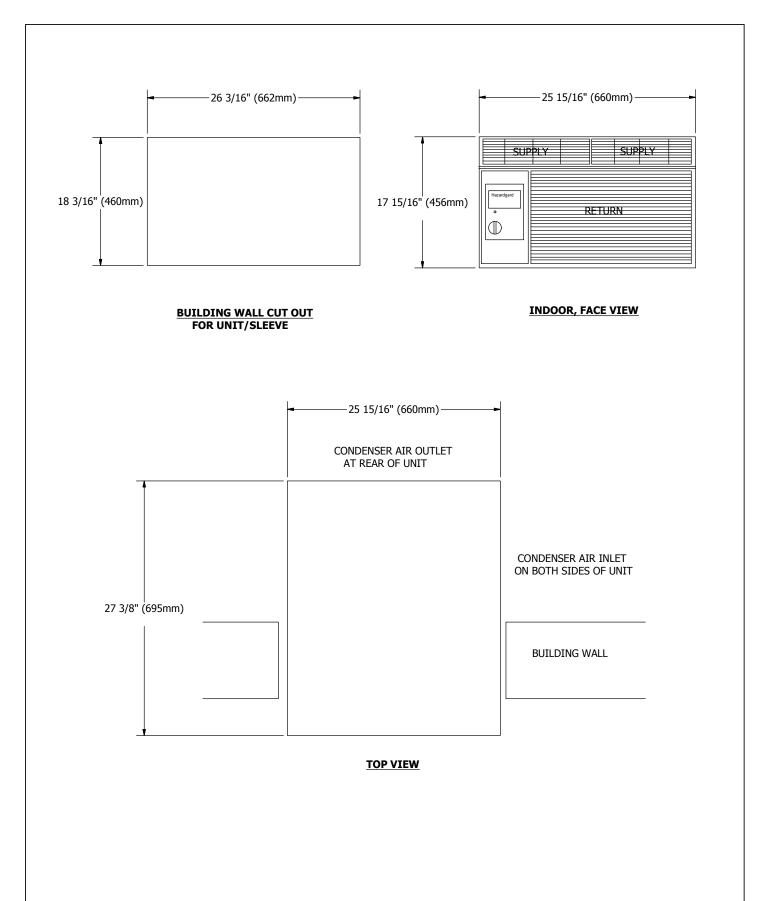
# Installation: Wall Cut Out & Chassis Dimensions

## Hazardgard Model: SH15M30A



# Installation: Wall Cut Out & Chassis Dimensions

Hazardgard Model: SH20M30B, SH20M30SA, SH20M50B, SH24N30A



## SPECIFICATIONS

|           |                                | Electrical Characteristics |                 |                             | Circuit Rating Breaker or       | Energy                     |                                  |                           |             |  |
|-----------|--------------------------------|----------------------------|-----------------|-----------------------------|---------------------------------|----------------------------|----------------------------------|---------------------------|-------------|--|
| Model     | Cooling<br>Capacity<br>Btu/Hr. | Volts<br>Rated             | Cooling<br>Amps | Cooling<br>Capacity<br>(KW) | T - D Fuse<br>Volts - Amps      | Efficiency<br>Ratio<br>EER | Moisture<br>Removal<br>Pints/ Hr | Air<br>Circulation<br>CFM | Refrigerant |  |
| 60 HERTZ  |                                |                            |                 |                             |                                 |                            |                                  |                           |             |  |
| SH15M30A  | 15,700/15,700                  | 230/208                    | 7.9/7.8         | 4.60/4.10                   | 250V-15                         | 9.7/9.7                    | 4.0                              | 375                       | R-410A      |  |
| SH20M30B  | 21,000/21,000                  | 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 | 19,000/19,000                  | 220                        | 8.5             | 5.57                        | 250V-20 (230V) / 250V-20 (208V) | 9.7/9.6                    | 5.5                              | 375                       | R-410A      |  |
| SH24N30A  | 24,000/24,000                  | 230/208                    | 11.8            | 6.8                         | 250V-20                         | 9.7/8.5                    | 8.0/7.5                          | 385                       | R-410A      |  |
| 50 HERTZ  |                                |                            |                 |                             |                                 |                            |                                  |                           |             |  |
| SH20M50B  | 21,000/19,100                  | 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**

|           | Dimensions<br>Inches  |                       |                     |                                |                                   | Window Width<br>Inches          |         | In-Wall Installation<br>Finished Hole Inches |                      |                      | Weight<br>Lbs.  |     |          |
|-----------|-----------------------|-----------------------|---------------------|--------------------------------|-----------------------------------|---------------------------------|---------|--|----------------------|----------------------|-----------------|-----|----------|
| Model     | Height                | Width                 | Depth with<br>Front | Depth J Box<br>to Louvers<br>B | Minimum<br>Extension<br>Into Room | Minimum<br>Extension<br>Outside | Min.    | Max.   | Height               | Width                | C<br>Max. Depth | Net | Shipping |
| SH15M30A  | 15 <sup>15/</sup> 16" | 25 <sup>15/</sup> 16" | 27 <sup>3</sup> /8" | 6"                             | 3 1/16"                           | 16 <sup>15/</sup> 16"           | 27 7/8" | 42"  | 16 <sup>3</sup> /16" | 26 <sup>3</sup> /16" | 6"              | 140 | 167      |
| SH20M30B  | 17 <sup>15/</sup> 16" | 25 <sup>15/</sup> 16" | 27 <sup>3</sup> /8" | 6"                             | 3 1/16"                           | 16 <sup>15/</sup> 16"           | 27 7/8" | 42"  | 18 <sup>3</sup> /16" | 26 <sup>3</sup> /16" | 6"              | 166 | 170      |
| SH20M30SA | 17 <sup>15/</sup> 16" | 25 <sup>15/</sup> 16" | 27 <sup>3</sup> /8" | 6"                             | 3 1/16"                           | 16 <sup>15/</sup> 16"           | 27 7/8" | 42"  | 18 <sup>3</sup> /16" | 26 <sup>3</sup> /16" | 6"              | 166 | 170      |
| SH24N30A  | 17 <sup>15/</sup> 16" | 25 <sup>15/</sup> 16" | 27 <sup>3</sup> /8" | 6"                             | 3 1/16"                           | 16 <sup>15/</sup> 16"           | 27 7/8" | 42"  | 18 3/16"             | 26 3/16"             | 6"              | 180 | 185      |
| SH20M50B  | 17 <sup>15/</sup> 16" | 25 <sup>15/</sup> 16" | 27 <sup>3</sup> /8" | 6"                             | 3 1/16"                           | 16 <sup>15/</sup> 16"           | 27 7/8" | 42"  | 18 <sup>3</sup> /16" | 26 <sup>3</sup> /16" | 6"              | 171 | 175      |

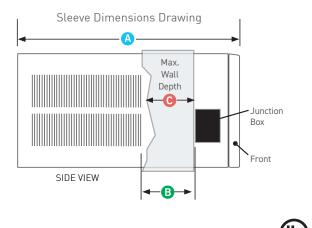
Due to continuing engineering research and technology, specifications are subject to change without notice.

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.







Friedrich Air Conditioning Co. | Friedrich.com