# FRIEDRICH

### 1883

# ROOM
# AIR CONDITIONERS

## COMMERCIAL AND RESIDENTIAL GRADE
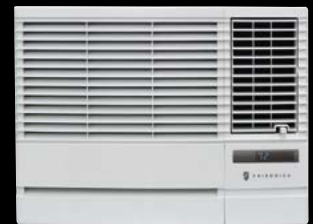
# Window Air Conditioner Selector Guide

| | | COMMERCIAL GRADE | | RESIDENTIAL GRADE | |
|---|---|---|---|---|---|
| | | **Kühl®** | **Kühl®+** | **Chill®** | **Chill®+** |
| **OVERVIEW** | Description | Bold design and exclusive features. Programmability to rival central systems. Trusted Friedrich durability. Designer colors. | All the performance and durability of Kühl, plus heating. Choose efficient heat pump or toasty electric heat. | Good value. Available in a large range of cooling capacities. 24-hr. timer. | Good value. Four models with electric heat. 24-hr. timer. |
| | Room size (sq. ft.) | 100-2700 | 350-2700 | 100-1500 | 100-1500 |
| | Functions | COOL ❄ | HEAT/COOL ☀❄ | COOL ❄ | HEAT/COOL ☀❄ |
| | Applications | COMMERCIAL AND RESIDENTIAL | COMMERCIAL AND RESIDENTIAL | RESIDENTIAL AND LIGHT COMMERCIAL | RESIDENTIAL AND LIGHT COMMERCIAL |
| **COMFORT & CONVENIENCE** | Electronic controls | Y | Y | Y | Y |
| | Timer | 7-day with up to 4 settings per day*; 24-hr. timer | 7-day with up to 4 settings per day*; 24-hr. timer | 24-hr. | 24-hr. |
| | Remote control | LCD | LCD | LCD | LCD |
| | Control with smart phone or computer with FriedrichLink® (accessory required) | Y | Y | — | — |
| | Auto-restart w/setting retention | Y | Y | Y | Y |
| | Auto temp/ fan speed adjustment | Y | Y | — | — |
| | Auto-changeover | — | All except EQ08 | — | — |
| | Air flow directions | 8 | 8 | 4 | 4 |
| | Auto swing louvers | — | — | All except CP05 | Y |
| | Optional color fronts | Y | Y | — | — |
| **SOUND REDUCTION TECHNOLOGY** | Steel inner wall and extra dense insulation | Y | Y | — | — |
| | Vibration isolating design and components | Y | Y | — | — |
| | Superior airflow design | Y | Y | — | — |
| **EARTH FRIENDLY** | ENERGY STAR® models | Y | Y | Y | — |
| | Smart Grid capable | Y | Y | — | — |
| | Environmentally friendly R-410A | Y | Y | Y | Y |
| | Energy saver switch | Y | Y | Y | Y |
| | RoHS compliant | Y | Y | — | — |
| **HEALTH** | Washable, antimicrobial air filter | Y | Y | Y | Y |
| | Optional carbon filter | Y | Y | — | — |
| | Check filter reminder | Y | Y | Y | Y |
| | Superior fresh air intake/stale air exhaust | All except SQ | All except EQ08 | Stale air exhaust only, all except CP05 | Stale air exhaust only |
| **SAFETY** | EntryGard™ anti-intrusion protection | Y | Y | Y | Y |
| | Insect barrier | All except SQ | All except EQ08 | — | — |
| **INSTALLATION** | Slideout chassis | Y | Y | All except CP05 | Y |
| | Power cord direction | Left or right | Left or right | Left or right | Left or right |
| | Thru-the-wall installation option | Y | Y | All except CP05 | Y |
| | Window installation hardware | Heavy duty | Heavy duty, available as accessory | Standard | Standard |

*Requires internet connection and FriedrichLink® accessory.

## Product Selection Tools

These tools are only a guide. Due to variations in room design, local climate and occupancy, larger areas may require the use of multiple units to provide the optimal cooling solution. Please consult your local authorized Friedrich distributor or the Friedrich Technical Assistance team for sizing or application assistance.

COOLING SIZING GUIDE

The cooling guide to the right is based on normal room insulation, average number of sun-exposed windows and two-person occupancy.

HEATING SIZING INFORMATION

In heating mode, an energy efficient heat pump will generate slightly less heating Btus than it would in cooling mode. However, in heating mode, heat pumps use approximately 1/3 the energy of resistance heat, making them an excellent high-efficiency alternative. Back-up resistance heat ensures heat operation below 40° F outdoor temperatures for year 'round comfort.

## Common Window Types

Traditional wooden windows are typical in many residences built before 1965, but more modern windows are often constructed of aluminum or vinyl. Many newer energy efficient windows like double-glazed windows actually sandwich low conductance gas between two panes of glass. While Friedrich air conditioners may be used with this type of window, care should be taken not to break the seal between the two panes of glass during installation.

Depending on the style of window in the application, you may want to consider the cooling solutions in the adjacent chart. Professional installers may be able to make field adaptations, including removing all or part of a window to support alternative types of air conditioning units. Professional installers should also be able to tell you about any local codes that may apply to your installation.
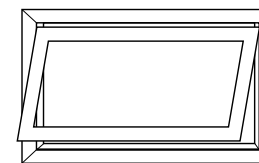
THRU-THE-WALL INSTALLATION
Many models may be installed through a wall so long as the unit's side vents are not blocked or covered in any way. See page 15, In-wall Installation max. depth.
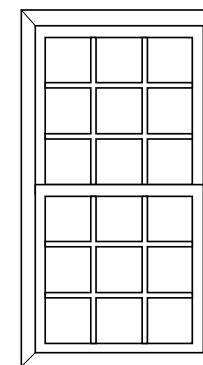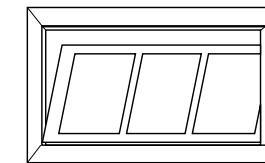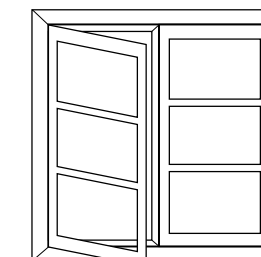


**Single/double hung**
(Opens up or down)
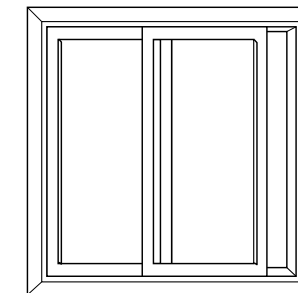
**Slider**
(Opens left to right, or right to left)

**Awning**
(Cranks out)

**Hopper**
(Opens in)

**Casement**
(Cranks out)

### COOLING SIZING GUIDE

| Area to be conditioned in sq. ft. | Cooling Btu |
|---|---|
| 100 - 150 | 5000 |
| 150 - 250 | 6000 |
| 250 - 300 | 7000 |
| 300 - 350 | 8000 |
| 350 - 400 | 9000 |
| 400 - 450 | 10000 |
| 450 - 550 | 12000 |
| 550 - 700 | 14000 |
| 700 - 1000 | 18000 |
| 1000 - 1200 | 21000 |
| 1200 - 1400 | 23000 |
| 1400 - 1600 | 25000 |
| 1600 - 1900 | 28000 |
| 1900 - 2700 | 36000 |

### WHICH AIR CONDITIONER IS RIGHT FOR YOU?

| Window Type | Air Conditioner |
|---|---|
| Single/double hung | Window, portable, ductless |
| Slider | Window*, portable, ductless |
| Casement | Portable, ductless |
| Vertical Casement | Portable, ductless |
| Awning | Portable, ductless |
| Hopper | Portable, ductless |
| Picture (non-opening) | Thru-the-wall, ductless |

*May require additional modifications

KÜHL.
BUILT TOUGH FOR THE
MOST DEMANDING
APPLICATIONS
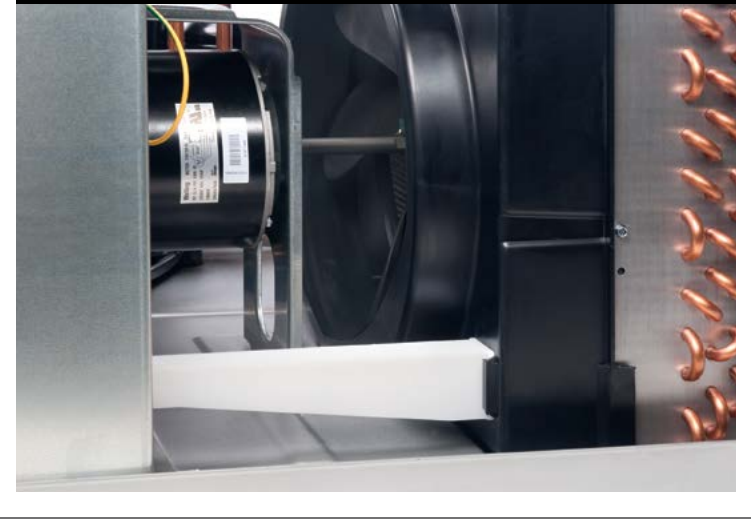
## Kühl Construction.

For over 125 years, Friedrich products have been renowned for their commercial-grade, built-to-last design.

Advanced engineering, high-end materials and components, and rigorous product testing are just a few examples of Friedrich's commitment to quality. When designing Kühl, our engineers challenged convention to develop the very best window air conditioner on the market. Kühl incorporates high-end materials like heavy-gauge galvanized steel, rifled copper tubing, and high-tech aluminum fins.

Kühl also uses the most durable components to extend the life of your air conditioner, including fully -enclosed fan motors that seal out dirt, and powerful, energy-efficient compressors, which make Kühl as tough an air conditioner as we've ever built.

## Kühl Quiet.

Kühl has been engineered for quiet operation. Materials have been chosen because of their sound-absorption properties and every moving part has been braced and insulated. For example, extra thick rubber grommets absorb vibration and reduce noise inside, while steel inner walls and extra dense insulation block outdoor noise.

Rugged hardboard side panels help reduce noise and keep out light. The unique air path is more streamlined, drawing air through the sides, away from moving parts. And our larger discharge vents allow for smoother airflow, delivering maximum conditioned air quietly.

## Kühl Comfort.

The most comfortable temperature is the one you never notice. Kühl uses multiple built-in environmental sensors to more accurately monitor indoor and outdoor temperatures so that it can maintain your ideal settings.

Kühl+ models have the ability to cool or heat as needed so units can operate year-round. And, like the most advanced central systems, Kühl+ automatically switches between air conditioning and heating functions to maintain the desired comfort level. You won't have to lift a finger.

Plus, Kühl's air flow systems are tested for powerful and precise air distribution which means faster cooling when you need it most.

# BUILDING ENERGY MANAGEMENT CAPABILITIES

FriedrichLink® offers more ways to control energy usage than any other room air conditioner.

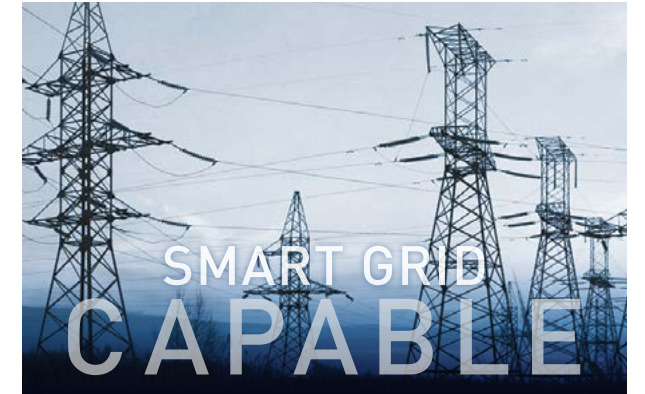Kühl® Series
Wireless Control.
Whenever. Wherever.

## Smart Grid Capable

Kühl is the first room air conditioner that can tie into a power company's smart grid.

A grid is a network that brings electricity from power stations to consumers. New technologies allow power companies to adjust electrical loads of residential users based on their specific needs - this is called a 'smart grid'. Smart grid helps consumers to be better informed about their electricity usage and allows electric utility companies to serve customer demand in the most efficient way.

For example, during a hot summer afternoon when AC units are running at full capacity, the smart grid can send information to recalibrate other loads, which helps to alleviate stress on the system as a whole.

Source: SGIC (Smart Grid Information Clearinghouse)

SMART GRID CAPABLE

## Kühl® Control

| Built-in controls | **SIMPLE OPERATION**<br>Turn the unit on, select 'MODE' and make simple up/down temperature adjustments either at the control panel or with included remote. |
|---|---|
| | **BUILT-IN 7 DAY SCHEDULES**<br>Kühl units include two 7-day energy management schedules which can be accessed and selected from the unit's controls.<br><br>The '*Residential*' schedule causes Kühl to raise the room temperature temporarily during the hours when most people are away at work and lower them again prior to the time when most people will return home.<br><br>The '*Commercial*' schedule tells the unit to raise temperatures after typical working hours and on weekends when commercial spaces are typically unoccupied. |
| Wi-Fi control | **CUSTOM 7-DAY SCHEDULE** (*requires optional accessory sold separately*)<br>Create up to 5 custom programs that you can use to operate your Kühl air conditioner for maximum comfort and efficiency. Each 7-day program allows up to 4 setting changes per day.<br><br>**WIRELESS CONTROL**<br>Control Kühl units with a smartphone, tablet or computer. You can even group units to operate as a single system for central air-like control. |
| Wireless thermostat | **KWW WIRELESS THERMOSTAT** (*requires optional accessory sold separately.*)<br>Connect up to 8 Kühl units* with 1 KWW thermostat. Each unit requires 1 communication module (KCM). KWW thermostat ships with 1 KCM module. |
| | Kühl units* can be connected to a Building Management System with a KCM module (1 for each Kühl unit) and a KJD. KEG may also be required depending on Building Management System. Contact your Friedrich sales representative for more information. |

*Wireless thermostat and Building Management Systems are not compatible Kühl SQ and EQ models.

Control Kühl with a smartphone, tablet or computer.

FriedrichLink® Wi-Fi allows monitoring and control of one or all of your Kühl air conditioners remotely.

Connect Kühl to a Building Management System.

FACILITY MANAGEMENT

FriedrichLink®

## CASE STUDY: The Pratt Institute

"NYSERDA estimates that we can save 25% on our energy consumption which is tremendous... Friedrich really is the industry standard in room air conditioning".

Pratt Institute is located on over 26 acres in Brooklyn and Manhattan and has almost 300 room air conditioners in operation across the campus. Until Friedrich introduced Kühl, facilities management had to depend on personnel to remember to turn units off and maintain appropriate operating conditions. However, Kühl's controls and scheduler now allow facilities operations to control all of their Friedrich units centrally using a hard card system and a daisy chain. NYSERDA estimates that Pratt can save 25% on energy consumption. And, Kühl comes in a variety of sizes which means Pratt has the flexibility to place a variety of units in different sized rooms.

Stephen Brennan
Director of Maintenance & Operations
Pratt Institute
Brooklyn, NY

*WI-FI operation requires optional accessory (sold separately)
Kühl units can be controlled remotely over a Wi-Fi network using FriedrichLink® Wi-Fi Adapter Accessory. A web-based control portal on Friedrich.com allows you to access units for monitoring or control.

# The KWW is the first Wireless Wall Thermostat for a Room Air Conditioner

## Four Program periods

(Morning, Day, Evening, and Night) The time and temperature can be set for each period. Upon initial power up the KWW loads time and temperature program default parameters for weekday and weekend days. The default program parameters conform to Energy Star guidelines and are a good point from which to start.

## Battery power, no control wiring needed

Runs on 2-AA batteries (4-included), the thermostat can operate continuously for approximately 18 months, and can be mounted in any suitable location that will provide good temperature control.

## Kick-Stand design

This feature permits the thermostat to stand on a flat surface such as a table or shelf, in the event that permanent mounting to a wall is not desired.

### RF technology means flexibility.

Radio frequency technology used to allow the KWW to communicate with the KCM; this is on a 900MHz RF band.

- Large Blue Backlight Screen
- Easy push button adjustments
- Degree °F and °C selection button
- Utility Demand Response capable / Interface to any building automation system

**WIRELESS THERMOSTAT**
Wireless control of up to 8 Kühl units* from a single wall-mounted thermostat.

*KWW wireless thermostat is not compatible Kühl SQ and EQ models.

**FriedrichLink®**

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# Window Air Conditioners

## Ultra Premium Line

Experience the control and convenience of a central air conditioning system in ways you never thought possible. Control Kühl units via FriedrichLink®.

You'll find more options, features and ways to customize each cooling experience than you ever thought possible in a window air conditioning solution.

FITS WINDOWS FROM 22" TO 42" WIDE

Neutral Gray
( S T A N D A R D )

COOL  COOL & HEAT

Full LCD display shows MODE, FAN SPEED, SET TEMPERATURE and SCHEDULE. Adjust TEMPERATURE and FAN SPEEDS, set AUTO MODE and turn the SCHEDULE ON/OFF.

FITS WINDOWS FROM 27 3/8" TO 42" WIDE

Neutral Gray
( S T A N D A R D )

COOL  COOL & HEAT

**Kühl®**
5200-9600 Btu
**Up to 11.2 EER**

**Kühl®+**
*Electric Heat*
COOLING
7900 Btu
**Up to 11.2 EER**
ELECTRIC HEAT
4000 Btu

**Kühl®**
8000-36000 Btu
**Up to 11.5 EER**

**Kühl®+**
*Electric Heat*
COOLING
12000-36000 Btu
**Up to 11.3 EER**
ELECTRIC HEAT
8900-17300 Btu

**Kühl®+**
*Heat Pump*
COOLING
9500-24000 Btu
**Up to 10.4 EER**
HEATING
8000-22000 Btu
**Up to 2.7 COP**

# Kühl® Features

## Comfort

- Convenient control from your smartphone or computer via FriedrichLink® (required accessory sold separately)
- 24-hour timer
- Up to 4 cooling and 4 fan-only speeds on select models†
- Automatic fan speed adjustment
- Auto-changeover from cool to heat; heat to cool to maintain set temperature (Kühl+ models except EQ08)
- 8-way air flow control
- Temperature readout can display set temperature and room temperature
- LCD panel auto dims if not in use
- LCD settings lockout option (ON/OFF)
- Premium remote control allows user to activate schedule, adjust temperature, adjust fan speed or select auto-fan; can also switch from cool to heat and heat to cool (Kühl + models)

## Maintenance & Installation

- Check filter reminder and error code storage
- Same sleeve dimensions for 30+ years for easy replacement
- Slideout chassis for more permanent installation and easier access for maintenance
- Installs in a window or in-wall
- Heavy-duty installation hardware lasts longer and provides a superior barrier from the outside elements (optional accessory on Kühl+ models)
- Rugged hardboard side panels or (heavy duty side curtains on SQ and EQ models) for a more permanent installation
- Power cord can run either left or right
- Firm grip handles for easier chassis installation and removal
- Front cover attaches easily and securely. Nut driver included**

## Durability

- Sealed control panel for protection from dust, moisture and contaminants
- Control module is separate from touch controls for better protection from the elements, abusive handling or accidental damage and to minimize repair costs
- Robust 20 gauge steel cabinet
- Solid-sleeve top keeps out falling debris*
- Solid-steel blower housing offers enhanced protection
- Totally enclosed commercial grade fan motor runs at a lower temperature to prevent overheating and is double-mounted for added stability and reduced wear
- Durable base pans and steel inner walls
- Unit's structural integrity allows it to be removed, cleaned and maintained outside of its sleeve
- Aluminum end plates will not contribute to rust-stained building exteriors
- Scratch-resistant cabinet
- High-tech aluminum fins with rifled copper tubing are more efficient and less prone to corrosion
- Defrost control protects coil against freeze up

## Sound Reduction Technology

- Steel inner wall and extra dense insulation materials block outdoor noise
- Vibration isolating design and components diminish traditional operating sound levels
- Precision engineering maximizes air flow while delivering ultra quiet operation

## Energy Management

- 2 ready-to-go 7-day energy management programs
- Control up to 8 units with wireless thermostat option*
- FriedrichLink® WiFi allows monitoring and control of one or all of your Kühl air conditioners remotely
- Compatible with building management system*
- Autofan mode saves money by conserving energy
- ENERGY STAR® qualified models, including heat pumps
- Environmentally-friendly R-410A refrigerant used in all models
- Recyclable packaging
- RoHS compliant

## Safety & Security

- EntryGard™ anti-intrusion protection - secures chassis to the sleeve with a steel retaining wire to deter 'kick-in' intrusion
- Power cord current leakage protected
- Aluminum rear grille protects the outdoor coil from damaging debris and vandalism
- Insect barrier*

## Health & IAQ

- Superior fresh air intake and stale air exhaust vent*
- Washable, antimicrobial air filter
- Optional premium carbon filter provides superior air filtration with ratings as high as MERV 6, while also adsorbing odors, and reducing ozone and VOCs when used in conjunction with standard filter
- Hinged door for easy filter access

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* Feature not available on Kühl SQ and EQ models. **Nut driver not required for Kühl SQ and EQ models.

† Kühl SQ and SL models have 3 fan speeds. Kühl+ models have 3 fan speeds cooling and heating.

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# Kühl® Accessories

## FRIEDRICHLINK® WI-FI ADAPTER

Wi-Fi Adapter Accessory connects to unit to allow for remote wireless access and programming from a computer, tablet or mobile device.

| Model | Kit No. |
| --- | --- |
| N Series | KWIFI |

## PREMIUM CARBON FILTERS

Remove odors and VOCs (volatile organic compounds). Achieve up to a MERV 6 rating when used with standard filter. Sold in packs of 3.

| Model | Kit No. |
| --- | --- |
| SQ and EQ | KWCFQ |
| SS, ES and YS | KWCFS |
| SM, EM and YM | KWCFM |
| SL, EL and YL | KWCFL |

## WINDOW MOUNTING KITS: KÜHL+

Heavy duty kits required for installation of these Kühl+ models in a window.

| Heat/Cool Models | Kit No. |
| --- | --- |
| EQ08N11B* | KWIKQA |
| ES12N33B, ES16N33, YS10N10B and YS12N33B. | KWIKSA |
| EM18N34, EM24N34A and YM18N34B. | KWIKMA |
| EL36N35B and YL24N35B. | KWIKLA |

*EQ08N11B window kit KWIKQ does not include window brackets.

KWIKQ                KWIKS, KWIKM, KWIKL

## COLORED FRONT COVERS

Colored front cover kits available

Deep Red                Cobalt Blue

Classic Beige                Designer White

Black Onyx

| Model | COLOR | | | | |
| --- | --- | --- | --- | --- | --- |
| | Deep Red | Cobalt Blue | Classic Beige | Designer White | Black Onyx |
| | Kit No. | | | | |
| SQ and EQ | KWREDQA | KWBLUQA | KWBGEQA | KWWHTQA | KWBLKQA |
| SS, ES and YS | KWREDSA | KWBLUSA | KWBGESA | KWWHTSA | KWBLKSA |
| SM, EM and YM | KWREDMA | KWBLUMA | KWBGEMA | KWWHTMA | KWBLKMA |
| SL, EL and YL | KWREDLA | KWBLULA | KWBGELA | KWWHTLA | KWBLKLA |

## DRAIN KIT

Drain tube field installed to the bottom on the base pan.

| Model | Kit No. |
| --- | --- |
| All Kühl Series Models | DC2 |

## WIRELESS THERMOSTAT- KWW

Wireless thermostat for control of Kühl units*. One thermostat can control up to 8 Kühl units. Additional units require 1 KCM communication module per unit. KWW Thermostat ships with 1 KCM Communication Module.

## COMMUNICATION MODULE- KCM

Communicates with KWW thermostat or building management system.

*Not compatible with Kühl SQ and EQ models.

# CHILL®
# SLEEK
# DESIGN

and outstanding efficiency.

Available in a range of capacities with convenience features for carefree cooling and heating.

## Premium Line

**Sleek white design and energy efficient operation, including heat/cool models.**

Our efficient line of room air conditioners with programmable controls for convenient operation

Auto air sweep swing louvers for even cooling throughout the room.

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## Chill® Features

### Comfort & Convenience

- 24-hour timer
- Auto air sweep swing louvers* provide more even air distribution
- 3 cooling speeds, plus 3 fan-only settings; 2 cooling speeds, 2 heating speeds, plus fan-only setting on Chill+
- Ultra quiet operation
- 4-way air flow control
- Auto-restart saves settings if power is interrupted

### Energy Management

- ENERGY STAR® qualified models
- Money Saver® setting saves money by operating the fan only when cooling

### Health & IAQ

- Washable, antimicrobial air filter
- Check filter alert
- Stale air exhaust

### Installation Features

- Slideout chassis*
- Install in window or thru-wall**
- Standard installation hardware
- Expandable side curtains
- Power cord can run either left or right out of the side of the unit front*

### Safety & Security Features

- EntryGard™ anti-intrusion protection

FITS WINDOWS FROM
20 1/8" TO 36" WIDE

CP05

**COOL**

Select MODE, FAN SPEED, MONEY SAVER®, adjust TEMPERATURE and set the TIMER.

FITS WINDOWS FROM
20 1/8" TO 42" WIDE

**COOL**   **COOL & HEAT**
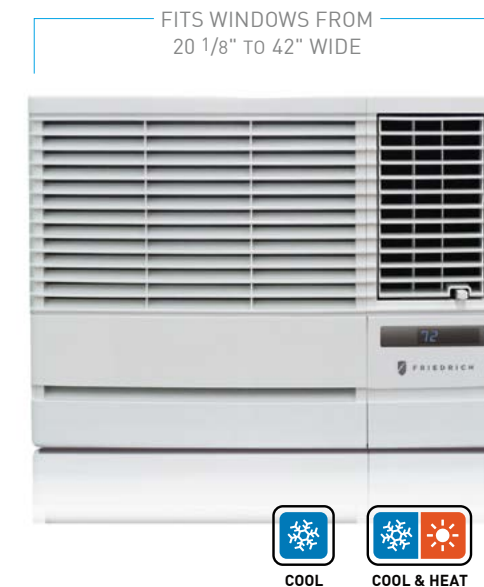
Select MODE, FAN SPEED, MONEY SAVER®, AUTO AIR SWEEP, adjust TEMPERATURE and set the TIMER.

\* Feature not available on CP05. \*\* CP05 has a fixed chassis and is for window installation only.

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**Chill®**
5450 Btu
**10.7 EER**

**Chill®**
6000-23500 Btu
**Up to 11.3 EER**

**Chill®+**
*Electric Heat*
COOLING
8000-23500 Btu
**Up to 9.8 EER**
ELECTRIC HEAT
3850-12000 Btu

5 YR. LIMITED WARRANTY

ENERGY STAR

# SPECIFICATIONS

★ ENERGY STAR® models

| Model | Cooling Btu | Heating Btu | Volts Rated | Cooling Amps | Cooling Watts | Heating Amps | Heating Watts | Energy Efficiency Ratio EER | Estimated Yearly Energy Cost | COP | Moisture Removal- Pints/HR | CFM | Sleeve | Net Wt. lbs. | Ship Wt. lbs. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Kühl®** | | | | | | | | | | | | | | | |
| ★ SQ05N10B | 5200 | - | 115 | 4.7 | 464 | - | - | 11.2 | $42 | - | 0.5 | 190 | Q | 72 | 85 |
| ★ SQ06N10B | 5700 | - | 115 | 4.7 | 509 | - | - | 11.2 | $46 | - | 0.5 | 190 | Q | 72 | 85 |
| ★ SQ08N10B | 7900 | - | 115 | 6.4 | 705 | - | - | 11.2 | $63 | - | 1.2 | 200 | Q | 71 | 84 |
| SQ10N10 | 9600 | - | 115 | 9.2 | 980 | - | - | 9.8 | $88 | - | 2.1 | 240 | Q | 71 | 84 |
| ★ SS08N10B | 8000 | - | 115 | 6.1 | 696 | - | - | 11.5 | $63 | - | 1.9 | 255 | S | 99 | 121 |
| ★ SS10N10B | 9700 | - | 115 | 7.8 | 858 | - | - | 11.3 | $77 | - | 2.5 | 300 | S | 106 | 128 |
| ★ SS12N10B | 12000 | - | 115 | 9.7 | 1062 | - | - | 11.3 | $96 | - | 3.0 | 300 | S | 112 | 134 |
| SS14N10A | 13500 | - | 115 | 12.0 | 1250 | - | - | 10.8 | $113 | - | 4.0 | 275 | S | 116 | 134 |
| ★ SS12N30B | 12000/12000 | - | 230/208 | 4.9/5.2 | 1062/1062 | - | - | 11.3/11.3 | $96 | - | 3.4 | 325 | S | 112 | 134 |
| SS16N30 | 15500/15200 | - | 230/208 | 6.5/7.1 | 1449/1421 | - | - | 10.7/10.7 | $130 | - | 4.8 | 350 | S | 116 | 136 |
| ★ SM15N10B | 15000 | - | 115 | 12.0 | 1339 | - | - | 11.2 | $121 | - | 3.5 | 360 | M | 141 | 154 |
| SM18N30 | 17500/17200 | - | 230/208 | 7.4/8.0 | 1635/1607 | - | - | 10.7/10.7 | $147 | - | 4.6 | 350 | M | 140 | 161 |
| SM21N30B | 20500/20000 | - | 230/208 | 9.3/10.2 | 2092/2062 | - | - | 9.8/9.7 | $188 | - | 6.0 | 425 | M | 132 | 153 |
| SM24N30A | 23500/23200 | - | 230/208 | 12.7/13.6 | 2765/2730 | - | - | 8.5/8.5 | $249 | - | 7.1 | 430 | M | 152 | 173 |
| ★ SL24N30B | 24000/23800 | - | 230/208 | 10.8/11.4 | 2449/2429 | - | - | 9.8/9.8 | $220 | - | 7.0 | 640 | L | 191 | 212 |
| ★ SL28N30B | 28000 | - | 230/208 | 13.0/14.0 | 2857/2875 | - | - | 9.8/9.6 | $257 | - | 8.5 | 640 | L | 193 | 214 |
| SL36N30B | 36000/35500 | - | 230/208 | 17.5/19.2 | 4000/3944 | - | - | 9.0/9.0 | $360 | - | 12.0 | 725 | L | 212 | 248 |
| **Kühl+® (Heat Pump)** | | | | | | | | | | | | | | | |
| ★ YS10N10B* | 9500 | 8000 | 115 | 8.2 | 913 | 7.3 | 870 | 10.4 | $82 | 2.7 | 2.0 | 300 | S | 109 | 131 |
| ★ YS12N33B | 11500/11300 | 9400/9000 | 230/208 | 5.0/5.4 | 1106/1087 | 4.6/5.0 | 1132/1139 | 10.4/10.4 | $100 | 2.4/2.3 | 3.0 | 375 | S | 115 | 136 |
| ★ YM18N34B | 17500/17200 | 15500/15000 | 230/208 | 7.5/8.1 | 1683/1654 | 7.8/8.4 | 1824/1765 | 10.4/10.4 | $151 | 2.5/2.5 | 5.4 | 370 | M | 141 | 154 |
| ★ YL24N35B | 24000/24000 | 22000/22000 | 230/208 | 10.8/11.6 | 2449/2449 | 10.7/11.4 | 2391/2391 | 9.8/9.8 | $220 | 2.6/2.6 | 7.0 | 600 | L | 197 | 211 |
| **Kühl+® (Electric Heat)** | | | | | | | | | | | | | | | |
| EQ08N11B | 7900 | 4000 | 115 | 6.4 | 705 | 11.2 | 1290 | 11.2 | $61 | - | 1.2 | 200 | Q | 72 | 84 |
| ES12N33B | 12000/12000 | 10700/8900 | 230/208 | 4.9/5.2 | 1062/1062 | 16.0/14.7 | 3500/2900 | 11.3/11.3 | $96 | - | 3.4 | 325 | S | 113 | 128 |
| ES16N33 | 15500/15200 | 10700/8900 | 230/208 | 6.5/7.1 | 1449/1421 | 16.0/14.7 | 3500/2900 | 10.7/10.7 | $130 | - | 4.8 | 350 | S | 117 | 133 |
| EM18N34 | 17500/17200 | 13000/10600 | 230/208 | 7.4/8.0 | 1635/1607 | 19.5/17.0 | 4200/3500 | 10.7/10.7 | $147 | - | 4.6 | 350 | M | 141 | 154 |
| EM24N34A | 23500/23200 | 13000/10600 | 230/208 | 12.7/13.6 | 2765/2730 | 19.5/17.0 | 4200/3500 | 8.5/8.5 | $249 | - | 7.1 | 430 | M | 153 | 166 |
| EL36N35B | 36000/35500 | 17300/14300 | 230/208 | 17.5/19.2 | 4000/3944 | 24.0/22.4 | 5500/4650 | 9.0/9.0 | $360 | - | 12.0 | 725 | L | 213 | 246 |
| **Chill® (Cool Only)** | | | | | | | | | | | | | | | |
| CP05G10A | 5450 | - | 115 | 4.8 | 500 | - | - | 10.7 | $46 | - | 1.5 | 140 | P1 | 46 | 50 |
| ★ CP06G10A | 6000 | - | 115 | 4.9 | 530 | - | - | 11.2 | $48 | - | 1.8 | 200 | P6 | 60 | 66 |
| ★ CP08G10A | 7800 | - | 115 | 6.3 | 690 | - | - | 11.2 | $63 | - | 2.2 | 250 | P6 | 64 | 70 |
| ★ CP10G10A | 10000 | - | 115 | 8.5 | 880 | - | - | 11.3 | $80 | - | 3.0 | 300 | P7 | 81 | 87 |
| ★ CP12G10A | 12000 | - | 115 | 9.7 | 1060 | - | - | 11.3 | $96 | - | 3.3 | 330 | P7 | 87 | 93 |
| ★ CP15G10A | 15000 | - | 115 | 12.0 | 1330 | - | - | 11.2 | $121 | - | 4.0 | 400 | P8 | 120 | 134 |
| ★ CP18G30A | 18000/17500 | - | 230/208 | 7.3/7.8 | 1600/1560 | - | - | 11.2/11.2 | $145 | - | 4.5 | 520 | P9 | 136 | 150 |
| ★ CP24G30A | 23500/23000 | - | 230/208 | 10.9/11.8 | 2390/2340 | - | - | 9.8/9.8 | $216 | - | 6.8 | 590 | P9 | 146 | 160 |
| **Chill+® (Electric Heat)** | | | | | | | | | | | | | | | |
| EP08G11A | 8000 | 3850 | 115 | 7.5 | 820 | 11.0 | 1260 | 9.8 | $73 | - | 2.6 | 265 | P7 | 79 | 85 |
| EP12G33A | 12000/11500 | 11200/9200 | 230/208 | 5.5/5.8 | 1220/1170 | 15.3/14.0 | 3500/2900 | 9.8/9.8 | $110 | - | 3.3 | 265 | P7 | 87 | 93 |
| EP18G33A | 18000/17500 | 12000/9800 | 230/208 | 8.3/9.0 | 1850/1800 | 16.0/15.0 | 3670/3100 | 9.7/9.7 | $167 | - | 5.5 | 430 | P9 | 136 | 150 |
| EP24G33A | 23500/23000 | 12000/9800 | 230/208 | 12.2/13.2 | 2760/2700 | 16.0/15.0 | 3670/3100 | 8.5/8.5 | $249 | - | 6.5 | 560 | P9 | 146 | 160 |

* Operates on 115 volt and is not equipped with supplemental heat. Will not provide heat at temperatures below 40°F. Friedrich room air conditioners are designed to operate in outdoor temperatures from 60° F to 115° F.

Kühl+ Heat Pump heating information (shown in red) indicates heat pump performance. Kühl+ and Chill+ Electric Heat heating information (shown in red) indicates electric heat strip performance. For Kühl+ Heat Pump electric heating performance refer to corresponding Kühl+ Electric Heat model.

As an ENERGY STAR® partner, Friedrich Air Conditioning Co. has determined that the selected ENERGY STAR® models meet the ENERGY STAR® guidelines for energy efficiency.

The consumer- through the AHAM Room Air Conditioner Certification Program- can be certain that the AHAM Certification Seal accurately states the unit's cooling and heating capacity rating, the amperes and the energy efficiency ratio.

Your operating costs will depend on your utility rates and use. The estimated operating cost is based on a electricity cost of $ .12 per kWh. For more information, visit www.ftc.gov/energy.

Due to continuing research in new energy-saving technology, specifications are subject to change without notice.

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# INSTALLATION INFORMATION/SLEEVE DIMENSIONS

| Sleeve | Height INCHES | Width INCHES | Depth with Front INCHES (A) | Shell Depth to Louvers INCHES (B) | Minimum Extension Into Room* INCHES | Minimum Extension Outside* INCHES | Window Width INCHES Minimum** | Window Width INCHES Maximum | In-wall Installation Finished Hole INCHES Height | Width | Max. Depth (C) | Carton Dimensions INCHES Height | Width | Depth |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Q | 14 ½" | 19 ¾" | 21 ⅜" | 8 ½" | 5 ½" | 10 ¾" | 22" | 42" | 14 ¾" | 20" | 8 ½" | 18 ¾" | 25 ½" | 22 ¾" |
| P1† | 12" | 18 ½" | 15" | 5" | 3 ½" | 10 ¾" | 20 ⅛" | 36" | NOT FOR THRU-WALL | | | 15 ¼" | 22 ¼" | 17 ½" |
| P6 | 14" | 18 ⅜" | 20 ⅞" | 8 ⅛" | 4 ½" | 11" | 20 ⅛" | 36" | 14 ⅛" | 18 ⅞" | 7 ½" | 17 ⅞" | 22 ¾" | 22" |
| P7 | 15" | 23 ⅝" | 21 ¾" | 8 ¾" | 4 ½" | 12" | 25 ¼" | 39" | 15 ¼" | 23 ⅞" | 8" | 18 ¾" | 26 ¾" | 23 ⅞" |
| P8 | 16 ⅞" | 26" | 26 ⅞" | 10 ¼" | 5 ½" | 16 ⅝" | 26 ½" | 42" | 17 ⅛" | 26 ¼" | 9 " | 21 ½" | 29 ½" | 29" |
| P9 | 16 ⅞" | 26" | 30 ⅜" | 10 ¼" | 5 ½" | 19 ½" | 26 ½" | 42" | 17 ⅛" | 26 ¼" | 9 " | 21 ½" | 33" | 28 ⅞" |
| S | 15 15/16" | 25 15/16" | 29" | 8 ¾" | 5 ¾" | 16 15/16" | 27 ⅜" | 42" | 16 3/16" | 26 3/16" | 7 ⅜" | 19" | 34 ½" | 29" |
| M | 17 15/16" | 25 15/16" | 29" | 8 ¾" | 5 ¾" | 16 15/16" | 27 ⅜" | 42" | 18 3/16" | 26 3/16" | 7 ⅜" | 21" | 34 ½" | 29" |
| L | 20 3/16" | 28" | 35 ½" | 16 ½" | 5 ⅜" | 18 15/16" | 29 ⅞" | 42" | 20 ⅜" | 28 ¼" | 15 ⅛" | 24 ½" | 38 ⅞" | 31 ⅝" |

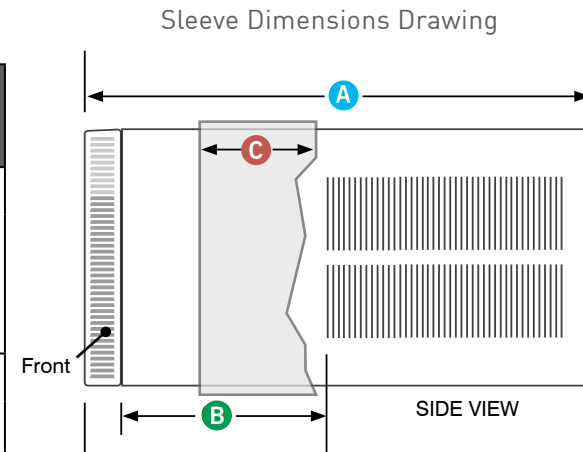* Minimum extensions when mounted in a window.
** Minimum widths achieved using one side curtain assembly as opposed to both in a standard installation.
† Sleeve P1 does not have In-wall hole dimensions, as these units are fixed chassis and should not be installed In-wall.
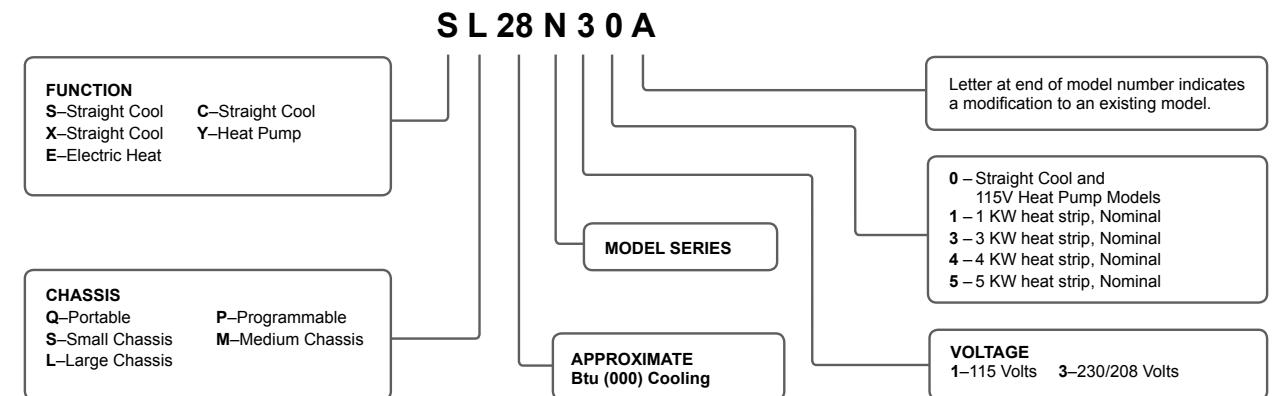NOTE: S,M and L sleeves may be installed in window with no side kits if properly installed.

## Circuit Rating/ Breaker

| Model | Circuit Rating Breaker or T-D Fuse | Plug Face (NEMA#) | Power Cord Length (ft.) | Wall Outlet Appearance |
|---|---|---|---|---|
| CP05 | 125V-15A | 5 -15P | 6 1/2 | |
| CP06G10A, CP08G10A, CP10G10A, CP12G10A and CP15G10A. EP08G11A. All SQ MODELS. EQ08N11B. SS08N10B, SS10N10B, SS12N10B and SS14N10A. YS10N10B. SM15N10B. | 125V - 15A | 5- 5P | 6 | |
| CP18G30 | 250V - 15A | 6 - 15P | 4 1/2 | |
| SS12N30B and SS16N30, SM18N30 and SM21N30B. SL24N30B. | | | 6 | |
| CP24G30A. EP12G33A, EP18G33A and EP24G33A. | 250V - 20A | 6 - 20P | 4 | |
| SM24N30A. SL28N30B. ES12N33B and ES16N33. YS12N33B. | 250V - 20A | 6 - 20P | 6 | |
| SL36N30B. EM18N34, EM24N34A and EL36N35B. YM18N34B and YL24N35B. | 250V - 30A | 6 - 30P | 6 | |

### Sleeve Dimensions Drawing

Front

SIDE VIEW

## Room Air Conditioner Model Identification Guide

S L 28 N 3 0 A

**FUNCTION**
S–Straight Cool       C–Straight Cool
X–Straight Cool       Y–Heat Pump
E–Electric Heat

**CHASSIS**
Q–Portable            P–Programmable
S–Small Chassis       M–Medium Chassis
L–Large Chassis

**APPROXIMATE Btu (000) Cooling**

**MODEL SERIES**

**VOLTAGE**
1–115 Volts       3–230/208 Volts

0 – Straight Cool and 115V Heat Pump Models
1 – 1 KW heat strip, Nominal
3 – 3 KW heat strip, Nominal
4 – 4 KW heat strip, Nominal
5 – 5 KW heat strip, Nominal

Letter at end of model number indicates a modification to an existing model.