# THE EXPERTS IN ROOM AIR CONDITIONING



COMMERCIAL GRADE
AND
RESIDENTIAL GRADE
MODELS





www.friedrich.com

#### WINDOW AIR CONDITIONER SELECTOR GUIDE

		COMMERC	IAL GRADE	RESIDEN	TIAL 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.	
OVE	Room size (sq. ft.)	100-2700	350-2700	100-1500	100-1500	
	Functions	COOL 🚳	HEAT/COOL	C00L	HEAT/COOL	
	Applications	COMMERCIAL AND RESIDENTIAL	COMMERCIAL AND RESIDENTIAL	RESIDENTIAL AND LIGHT COMMERCIAL	RESIDENTIAL AND LIGHT COMMERCIAL	
	Electronic controls	Y	Υ	Y	Υ	
兴	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.	
CONVENIENCE	Remote control	LCD	LCD	LCD	LCD	
ONVE	Control with smart phone or computer with FriedrichLink™ (accessory required)	Y	Y	_	_	
⊙ ⊗	Auto-restart w/setting retention	Y	Υ	Y	Y	
COMFORT &	Auto temp/ fan speed adjustment	Y	Υ	_	-	
JMC	Auto-changeover	_	All except EQ08	_	_	
Ö	Air flow directions	8	8	4	4	
	Auto swing louvers	_	-	All except CP05	Y	
	Optional color fronts	Υ	Υ	_	_	
CTION	Steel inner wall and extra dense insulation	Y	Y	-	_	
SOUND REDUCTION TECHNOLOGY	Vibration isolating design and components	Y	Y	_	-	
SOUNI	Superior airflow design	Υ	Υ	_	-	
	ENERGY STAR® models	Y	Υ	Υ	Y	
FRIENDLY	Smart Grid capable	Y	Υ	_	_	
H FRI	Environmentally friendly R-410A	Y	Y	Y	Y	
EARTH	Energy saver switch	Y	Y	Y	Υ	
	RoHS compliant	Y	Υ	_	-	
	Washable, antimicrobial air filter	Y	Υ	Υ	Υ	
Ξ	Optional carbon filter	Y	Υ	_	-	
НЕАLТН	Check filter reminder	Y	Υ	_	-	
	Superior fresh air intake/stale air exhaust	All except SQ & EQ models	All except EQ08	Stale air exhaust only, all except CP05	Stale air exhaust only	
SAFETY	EntryGard™ anti-intrustion protection	Y	Υ	Υ	Υ	
SAF	Insect barrier	Y	Υ	-	-	
z	Slideout chassis	Υ	Υ	All except CP05	Υ	
ATIO	Power cord direction	Left or right	Left or right	Left or right	Left or right	
INSTALLATION	Thru-the-wall installation option	Y	Υ	All except CP05	Y	
INST	Window installation hardware	Heavy duty	Heavy duty, available as accessory	Standard	Standard	

<sup>\*</sup>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.

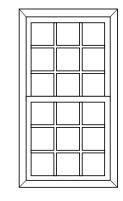
#### Common Window Types

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.

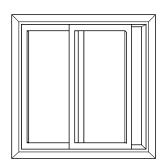
Depending on the style of window in the application, you may want to consider the cooling solutions in the adjacent chart. Professional installers may be able to make field adaptations, including removing all or part of a window to support alternative types of air conditioning units. Professional installers should also be able to tell you about any local codes that may apply to your installation.

#### THRU-THE-WALL INSTALLATION

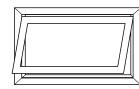
Many models may be installed through a wall so long as the unit's side vents are not blocked or covered in any way. See page 15, In-wall Installation max. depth.



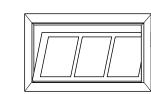




Slider
(Opens left to right, or right to left)



Awning (Cranks out)



Hopper (Opens in)



Casement (Cranks out)

#### **COOLING SIZING GUIDE**

A 1 1 122 1	
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

<sup>\*</sup>May require additional modifications

# KÜHL® IS COMMERCIAL GRADE

IT'S TOUGH, DURABLE, POWERFUL AND NOW IT'S WIRELESS.



# KÜHL CONSTRUCTION



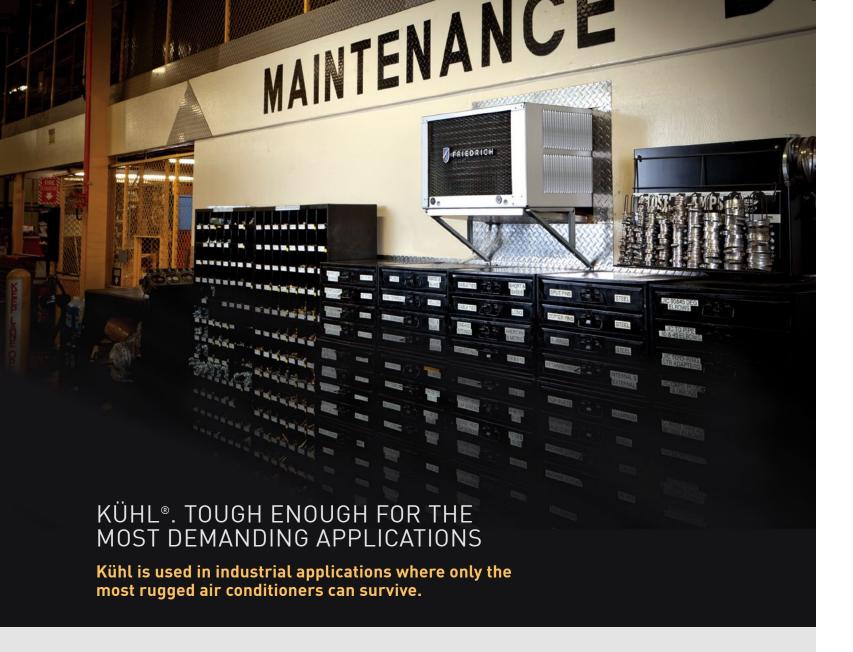


Kuhl Series





O COMMERCIAL GRADE



Friedrich conducts rigorous performance tests to ensure customer satisfaction and safety in our own UL-certified lab. Run tests are performed for up to 120 continuous days under extreme temperature conditions.

Air flow systems are tested for powerful and precise air distribution using state-of-the-art Computational Fluid Dynamics (CFD). Sound levels are measured and optimized in our Friedrich sound lab to ensure ultraquiet performance. Premium air filters are tested for adsorption capacities and efficiencies.

The unit's control software is tested for constant and reliable operation. Packaging exceeds ISTA (International Safe Transit Association) standards in order to withstand transportation hazards.

Advanced design technology. Extensive product testing. It's what you can expect from Friedrich.

# THE NEXT BIG THING IN CONTROLLING ENERGY COSTS IS AVAILABLE RIGHT NOW.

#### Building energy management capabilities

New wireless capabilities open up a whole new dimension of building energy management. Kühl's new controls allow facilities management personnel to remotely control set points, schedules and operating modes.

And units can be controlled from remote computers and mobile devices using the only online interface ever developed for room air conditioners.



#### 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



# KÜHL® YOUR WORLD

Whenever. Wherever. Kühl is Wi-Fi enabled so you can control settings from a smartphone, tablet or computer.



WI-FI OPERATION (requires optional accessory sold separately)

Kühl units can be controlled

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.





With Kühl you can choose from simple ON/OFF operation of a single unit to advanced programming and scheduling.

#### SIMPLE OPERATION

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**

Kühl units include two 7-day energy management schedules which can be accessed and selected from the unit's controls.

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.

The 'Commercial' schedule tells the unit to raise temperatures after typical working hours and on weekends when commercial spaces are typically unoccupied.

CUSTOM 7-DAY SCHEDULE (requires optional accessory sold separetely)
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.

See http://friedrichlink.friedrich.com for more details.



#### 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)

#### WINDOW AIR CONDITIONERS

#### Kuhl® 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.



Kühl<sup>®</sup> 5400-9600 Btu **Up to 11.2 EER** 

Kühl®+
Electric Heat
COOLING
7600 Btu
Up to 10.5 EER
ELECTRIC HEAT
4000 Btu



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.



Kühl®

7900-36000 Btu **Up to 11.2 EER** 

Kühl®+
Electric Heat
COOLING
7600-36000 Btu
Up to 10.9 EER
ELECTRIC HEAT

Kühl®+ Heat Pump COOLING 9500-23500 Btu Up to 10.5 EER

4000-17300 Btu

HEATING 8000-23500 Btu

KÜHL CONTROL

#### 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 (Kuhl+ models except
- 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
- 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
- Vibration isolating design and components diminish traditional operating sound levels
- Precision engineering maximizes air flow while delivering ultra quiet operation

#### **Energy Management &** Compliance

- 2 ready-to-go 7-day energy management programs\*
- Autofan mode saves money by conserving energy
- ENERGY STAR® qualified models, including heat pumps
- 24V low voltage interface
- 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'
- 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

#### tablet or mobile device

FRIEDRICHLINK™ ADAPTER

KÜHL® ACCESSORIES

Wi-Fi Adapter Accessory connects to unit to allow for remote wireless access and programming from a computer,

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.
EQ08N11*	KWIKQ
ES12N33, ES16N33, YS10N10A and YS12N33.	KWIKS
EM18N34, EM24N34A and YM18N34.	KWIKM
EL36N35 and YL24N35.	KWIKL

<sup>\*</sup>EQ08N11 window kit KWIKQ does not include window brackets.



**KWIKQ** 

KWIKS, KWIKM, KWIKL

#### COLORED FRONT COVERS

Colored front cover kits available





Deep Red





Classic Beige

Designer White



Black Onyx

	COLOR									
	Deep Red	Cobalt Blue	Classic Beige	Designer White	Black Onyx					
Model			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



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

#### CHILL™ SERIES 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.



# Energy STAR





#### WINDOW AIR CONDITIONERS



Chill™
5450 Btu
10.7 EER



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



Chill™
6000-23500 Btu
Up to 10.8 EER

Chill™+
Electric Heat
COOLING
8000-23500 Btu
Up to 9.8 EER

ELECTRIC HEAT 3850-12000 Btu

#### 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+
- Ultraquiet operation
- 4-way air flow control
- Auto-restart saves settings if power is interrupted

### Energy Management & Compliance

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

#### Health & IAQ

- Washable, antimicrobial air filter
- 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

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

★ ENERGY STAR® models

Model	Cooling Btu	Heating Btu	Volts Rated	Cooling Amps	Cooling Watts	Heating Amps	Heating Watts	Energy Efficiency Ratio EER	Estimated Yearly Operating Cost	COP	Moisture Removal- Pints/HR	CFM	Sleeve	Net Wt. lbs.	Sh Wi lbs
Kühl®															
SQ05N10	5400	-	115	4.9	482	-	-	11.2	\$38	-	0.5	190	Q	72	8
SQ06N10	5800	-	115	4.9	527	-	-	11	\$42	-	0.5	190	Q	72	8
SQ08N10	8000	-	115	6.6	741	-	-	10.8	\$59	-	1.2	240	Q	71	8
SQ10N10	9600	-	115	9.2	980	-	-	9.8	\$78	-	2.1	240	Q	71	8
SS08N10A	7900		115	6.6	731			10.8	\$58	-	1.5	255	S	99	1:
SS10N10	9500	-	115	7.7	848	-	-	11.2	\$67	-	2.5	300	S	106	1
SS12N10	12000	-	115	10	1111	-	-	10.8	\$88	-	3.0	300	S	112	1:
SS14N10A	13500		115	10.8	1250			10.8	\$100	-	4.0	275	S	116	1
SS12N30	11500/11200	-	230/208	4.8/4.9	1055/1027	-	-	10.9/10.9	\$84	-	2.8	275	S	112	1
SS16N30	15500/15200		230/208	6.5/7.1	1449/1421			10.7/10.7	\$116	-	4.8	350	S	116	1:
SM15N10	14800		115	12.0	1358			10.9	\$108	-	3.5	360	М	141	1
SM18N30	17500/17200	-	230/208	7.4/8.0	1635/1607	-	-	10.7/10.7	\$130	-	4.6	350	М	140	1
SM21N30	20500/20000	-	230/208	9.4/10.3	2181/2128	-	-	9.4/9.4	\$173	-	6.0	425	М	132	1
SM24N30A	23500/23200		230/208	12.7/13.6	2765/2730			8.5/8.5	\$221	-	7.1	430	М	152	1
SL24N30	24000/23800	-	230/208	11.2/12.0	2553/2532	-	-	9.4/9.4	\$203	-	7.0	640	L	191	2
SL28N30	27500/27000	-	230/208	13.5/14.4	2926/2872	-	-	9.4/9.4	\$233	-	8.5	640	L	193	2
SL36N30	36000/35700	-	230/208	19/20.5	4235/4200	-	-	8.5/8.5	\$337	-	12.0	725	L	212	2
Kühl® + (He	eat Pump)														
YS10N10A*	9500	8000	115	6.4	915	7.3	870	10.4	\$73	2.7	2.0	300	S	109	1
YS12N33	11500/11300	9400/9000	230/208	5.2/5.4	1095/1076	5.6/5.8	1132/1139	10.5/10.5	\$87	2.4/2.3	3.0	375	S	115	1
YM18N34	17900/17700	15500/15400	230/208	8.5/8.9	1808/1788	8.5/8.7	1833/1761	9.9/9.9	\$144	2.5/2.6	5.4	370	M	141	1
YL24N35	23500/23000	23500/23200		11.1/12.0	2500/2447	12.2/14.3	2610/2575	9.4/9.4	\$199	2.6/2.6	7.0	600	L	197	
Kühl®+ (Ele		20000, 20200	200,200	,	2000,211,	12.12, 1 110	2010,2070	71.1,711	Ψ177	2.0, 2.0	7.0				_
EQ08N11	7600	4000	115	6.7	724	11.2	1290	10.5	\$58		1.9	175	Q	72	
ES12N33	11500/11200	10700/8900	230/208	4.8/4.9	1055/1027	16.0/14.7	3500/2900	10.9/10.9	\$84		2.8	275	S	113	1
ES16N33	15500/15200	10700/8700	230/208	6.5/7.1	1449/1421	16.0/14.7	3500/2700	10.7/10.7	\$116		4.8	350	S	117	1
EM18N34	17500/17200	13000/10600	230/208	7.4/8.0	1635/1607							350	 M	141	1
		-				19.5/17 19.5/17	4200/3500	10.7/10.7	\$131 \$221	-	7.1			153	1
EM24N34A EL36N35	23500/23200 36000/35700	13000/10600 17300/14300	230/208	12.7/13.6 19/20.5	2765/2730 4235/4200	24.0/22.4	4200/3500 5500/4650	8.5/8.5 8.5/8.5	\$338		12.0	430 725	M L	213	2
		17300/14300	230/200	17/20.3	4233/4200	24.0/22.4	3300/4630	0.0/0.0	фээо		12.0	723			
Chill™ (Coo			115		F00			10.7	<b>#</b> (0			1/0	D4		
CP05G10	5450	-	115	4.8	500	-	-	10.7	\$40	-	1.5	140	P1	46	
CP06G10	6000	-	115	5.1	560	-	-	10.7	\$45	-	1.8	200	P6	60	
CP08G10	7800	-	115	6.8	720	-	-	10.8	\$58	-	2.2	250	P6	64	
CP10G10	10000	-	115	8.5	920	-	-	10.8	\$73	-	3.0	300	P7	81	
CP12G10	12000	-	115	10.2	1110	-	-	10.8	\$89	-	3.3	330	P7	87	
CP15G10	15000	-	115	12.9	1400	-	-	10.7	\$112	-	4.0	400	P8	120	1
CP18G30	18000/17500	-	230/208	7.6/8.1	1680/1630		-	10.7/10.7	\$134	-	4.5	520	P9	136	1
CP24G30	23500/23000	-	230/208	11.4/12.4	2500/2450	-	-	9.4/9.4	\$196	-	6.8	590	P9	146	1
Chill™+ (El	ectric Heat)														
EP08G11	8000	3850	115	7.5	820	11.0	1260	9.8	\$65	-	2.6	265	P7	79	
EP12G33	12000/11500	11200/9200	230/208	5.5/5.8	1220/1170	15.3/14.0	3500/2900	9.8/9.8	\$97	-	3.3	265	P7	87	
EP18G33	18000/17500	12000/9800	230/208	8.3/9.0	1850/1800	15.0/16.0	3670/3100	9.7/9.7	\$148	-	5.5	430	P9	136	1
EP24G33	23500/23000	12000/9800	220/200	12 2/12 2	2760/2700	15.0/16.0	3670/3100	8.5/8.5	\$220		6.5	560	P9	146	

<sup>\*</sup> 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.

Estimated yearly operating cost based on a 2007 national average electricity cost of 10.65 cents per kWh.

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





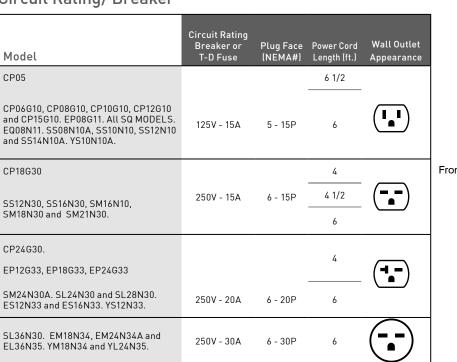


#### INSTALLATION INFORMATION/SLEEVE DIMENSIONS

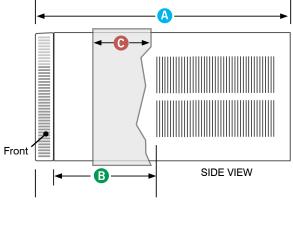
	Height	Width	Depth with Front INCHES	Shell Depth to Louvers INCHES	Minimum Extension Into Room*	Minimum Extension Outside	Window Width In-wall Installation INCHES Finished Hole INCHES			rton Dimensions INCHES				
Sleeve	INCHES	INCHES	A	В	INCHES	* INCHES	Minimum**	Maximum	Height	Width	Max. Depth C	Height	Width	Depth
Q	14"	19 3/4"	21 <sup>3</sup> /8"	8 1/2"	5 1/2"	10 ¾"	22"	42"	14 1/4"	20"	8 1/2"	18 <sup>3</sup> /4"	25 <sup>1</sup> /2"	22 <sup>3</sup> /4"
P1t	12"	18 ½"	15"	5"	3 1/2"	10 ¾"	20 1/8"	36"	NO.	T FOR T	HRU-WALL	15 <sup>1</sup> /4"	22 1/4"	17 <sup>1</sup> /2"
P6	14"	18 <sup>3</sup> /8"	20 <sup>7</sup> /8"	8 <sup>1</sup> /8"	4 1/2"	11"	20 1/8"	36"	14 <sup>1</sup> /8"	18 <sup>7</sup> /8"	7 1/2"	17 <sup>7</sup> /8"	22 3/4"	22"
P7	15"	23 5/8"	21 3/4"	8 3/4"	4 1/2"	12"	25 1/4"	39"	15 1/4"	23 7/8"	8"	18 <sup>3</sup> /4"	26 <sup>3</sup> /4"	23 7/8"
P8	16 <sup>7</sup> /8"	26"	26 <sup>7</sup> /8"	10 1/4"	5 1/2"	16 <sup>5</sup> /8"	26 1/2"	42"	17 <sup>1</sup> /8"	26 1/4"	9 "	21 1/2"	29 1/2"	29"
P9	16 <sup>7</sup> /8"	26"	30 <sup>3</sup> /8"	10 <sup>1</sup> /4"	5 1/2"	19 1/2"	26 1/2"	42"	17 <sup>1</sup> /8"	26 1/4"	9 "	21 1/2"	33"	28 <sup>7</sup> /8"
S	15 <sup>15</sup> /16"	25 <sup>15</sup> /16"	29"	8 ¾"	5 3/4"	16 <sup>15</sup> /16"	27 <sup>3</sup> /8"	42"	16 <sup>3</sup> /16"	26 <sup>3</sup> /16"	7 3/8"	19"	34 1/2"	29"
М	17 <sup>15</sup> /16"	25 <sup>15</sup> /16"	29"	8 3/4"	5 3/4"	16 <sup>15</sup> /16"	27 <sup>3</sup> /8"	42"	18 <sup>3</sup> /16"	26 <sup>3</sup> /16"	7 3/8"	21"	34 1/2"	29"
L	20 3/16"	28"	35 ½"	16 1/2"	5 <sup>3</sup> /8"	18 <sup>15</sup> /16"	29 <sup>7</sup> /8"	42"	20 3/8"	28 1/4"	15 <sup>1</sup> /8"	24 <sup>1</sup> /2"	38 7/8"	31 <sup>5</sup> /8"

<sup>\*</sup> Minimum extensions when mounted in a window.

#### Circuit Rating/ Breaker

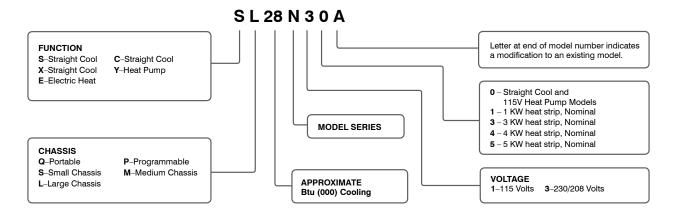


#### Sleeve Dimensions Drawing



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#### Room Air Conditioner Model Identification Guide



<sup>\*\*</sup> Minimum widths achieved using one side curtain assembly as opposed to both in a standard installation.

<sup>†</sup> 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.



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