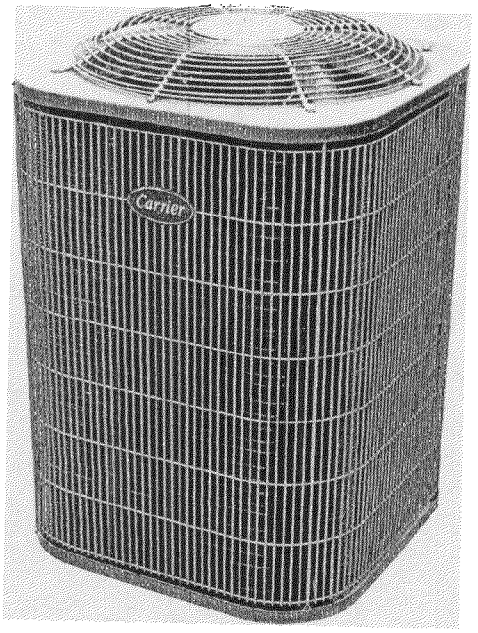
CA16NA036 BLK 895 LOT 9

CA16NA 018–061 Single–Stage Air Conditioner with Puron® Refrigerant

Carrier
turn to the experts

Product Data



Carrier's CA16 has been designed utilizing Carrier's Puron refrigerant. The environmentally sound refrigerant allows you to make a responsible decision in the protection of the earth's ozone layer.

This product has been designed and manufactured to meet Energy Star® criteria for energy efficiency when matched with appropriate coil components. Refer to the combination ratings in the Product Data for system combinations that meet Energy Star® guidelines.

NOTE: Ratings contained in this document are subject to change at any time. Always refer to the AHRI directory (www.ahridirectory.org) for the most up-to-date ratings information.

INDUSTRY LEADING FEATURES / BENEFITS

Efficiency

- 14 - 16.5 SEER/11.0- 13.5 EER
- Microtube Technology™ refrigeration system
- Indoor air quality accessories available

Sound

- Sound level as low as 76 dBA
- Sound level as low as 74 dBA with accessory sound blanket

Comfort

- System supports Edge® Thermidistat™ or standard thermostat controls

Reliability

- Puron® refrigerant - environmentally sound, won't deplete the ozone layer and low lifetime servce cost.
- Scroll compressor
- Internal pressure relief valve
- Internal thermal overload
- Filter drier
- Balanced refrigeration system for maximum reliability

Durability

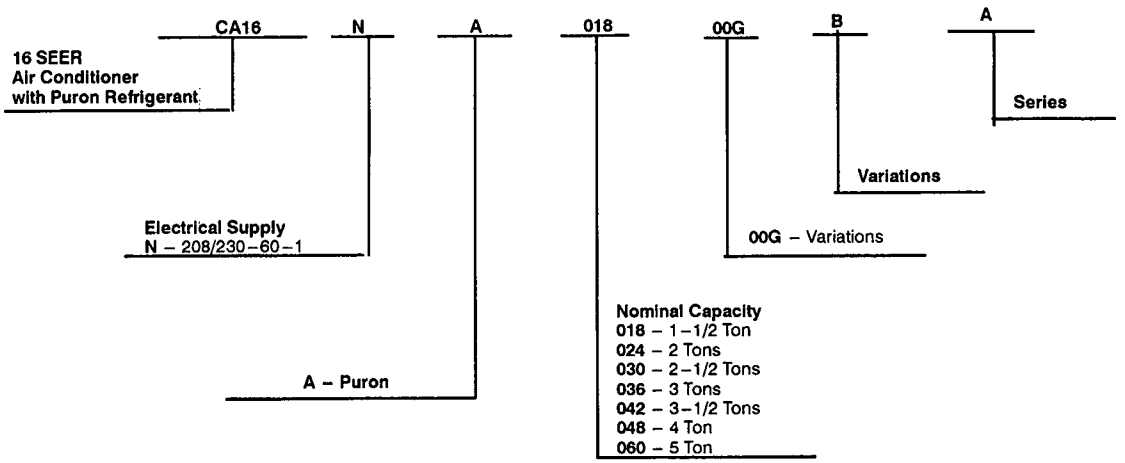
WeatherArmor™ protection package:

- Solid, durable sheet metal construction
- Dense wire coil guard standard
- Baked-on, complete outer coverage, powder paint

Applications

- Long-line - up to 250 feet (76.20 m) total equivalent length, up to 200 feet (60.96 m) condenser above evaporator, or up to 80 ft. (24.38 m) evaporator above condenser (See Longline Guide for more information.)
- Low ambient (down to -20°F/-28.9°C)) with accessory kit

MODEL NUMBER NOMENCLATURE



CA16NA

Puron™
the environmentally sound refrigerant

AHRI CERTIFIED
www.ahridirectory.org

Use of the AHRI Certified TM Mark indicates a manufacturer's participation in the program For verification of certification for individual products, go to www.ahridirectory.org.

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ASHRAE 90.1 COMPLIANT

ENERGY STAR

This product has been designed and manufactured to meet Energy Star® criteria for energy efficiency when matched with appropriate coil components. However, proper refrigerant charge and proper air flow are critical to achieve rated capacity and efficiency. Installation of this product should follow all manufacturing refrigerant charging and air flow instructions. **Failure to confirm proper charge and air flow may reduce energy efficiency and shorten equipment life.**

STANDARD FEATURES

Feature	18	24	30	36	42	48 / 49	60 / 61
Puron Refrigerant	X	X	X	X	X	X	X
Maximum SEER *	16.0	16.0	16.5	16.5	16.0	16.0	16.0
Scroll Compressor	X	X	X	X	X	X	X
Field Installed Filter Drier	X	X	X	X	X	X	X
Front Seating Service Valves	X	X	X	X	X	X	X
Internal Pressure Relief Valve	X	X	X	X	X	X	X
Internal Thermal Overload	X	X	X	X	X	X	X
Long Line capability	X	X	X	X	X	X	X
Low Ambient capability with Kit	X	X	X	X	X	X	X
Dense Grille	X	X	X	X	X	X	X

* With approved combinations
X = Standard

REFRIGERANT PIPING LENGTH LIMITATIONS

Liquid Line Sizing and Maximum Total Equivalent Lengths† for Cooling Only Systems with Puron® Refrigerant:

The maximum allowable length of a residential split system depends on the liquid line diameter and vertical separation between indoor and outdoor units.

See Table below for liquid line sizing and maximum lengths :

Maximum Total Equivalent Length
Outdoor Unit BELOW Indoor Unit

Size	Liquid Line Connection	Liquid Line Diam. w/ TXV	AC with Puron Refrigerant Maximum Total Equivalent Length†: Outdoor unit BELOW Indoor Vertical Separation ft (m)								
			0–5 (0–1.5)	6–10 (1.8–3.0)	11–20 (3.4–6.1)	21–30 (6.4–9.1)	31–40 (9.4–12.2)	41–50 (12.5–15.2)	51–60 (15.5–18.3)	61–70 (18.6–21.3)	71–80 (21.6–24.4)
18000 AC with Puron	3/8	1/4	150	150	125	100	100	75	--	--	--
		5/16	250*	250*	250*	250*	250*	250*	250*	225*	150
		3/8	250*	250*	250*	250*	250*	250*	250*	250*	250*
24000 AC with Puron	3/8	1/4	75	75	75	50	50	--	--	--	--
		5/16	250*	250*	250*	250*	250*	225*	175	125	100
		3/8	250*	250*	250*	250*	250*	250*	250*	250*	250*
30000 AC with Puron	3/8	1/4	30	--	--	--	--	--	--	--	--
		5/16	175	225*	200	175	125	100	75	--	--
		3/8	250*	250*	250*	250*	250*	250*	250*	250*	250*
36000 AC with Puron	3/8	5/16	175	150	150	100	100	100	75	--	--
		3//8	250*	250*	250*	250*	250*	250*	250*	250*	250*
42000 AC with Puron	3/8	5/16	125	100	100	75	75	50	--	--	--
		3/8	250*	250*	250*	250*	250*	250*	250*	250*	150
48000 AC with Puron	3/8	3/8	250*	250*	250*	250*	250*	250*	230	160	--
49000 AC with Puron	3/8	3/8	250*	250*	250*	250*	250*	250*	230	160	--
60000 AC with Puron	3/8	3/8	250*	250*	250*	225*	190	150	110	--	--
61000 AC with Puron	3/8	3/8	250*	250*	250*	225*	190	150	110	--	--

*** Maximum actual length not to exceed 200 ft (61 m)**

† Total equivalent length accounts for losses due to elbows or fitting. See the Long Line Guideline for details.

-- = outside acceptable range

Maximum Total Equivalent Length
Outdoor Unit ABOVE Indoor Unit

Size	Liquid Line Connection	Liquid Line Diam. w/ TXV	AC with Puron Refrigerant Maximum Total Equivalent Length†: Outdoor unit ABOVE Indoor Vertical Separation ft (m)							
			25 (7.6)	26–50 (7.9–15.2)	51–75 (15.5–22.9)	76–100 (23.2–30.5)	101–125 (30.8–38.1)	126–150 (38.4–45.7)	151–175 (46.0–53.3)	176–200 (53.6–61.0)
18000 AC with Puron	3/8	1/4	175	250*	250*	250*	250*	250*	250*	250*
		5/16	250*	250*	250*	250*	250*	250*	250*	250*
		3/8	250*	250*	250*	250*	250*	250*	250*	250*
24000 AC with Puron	3/8	1/4	100	125	175	200	225*	250*	250*	250*
		5/16	250*	250*	250*	250*	250*	250*	250*	250*
		3/8	250*	250*	250*	250*	250*	250*	250*	250*
30000 AC with Puron	3/8	1/4	30	--	--	--	--	--	--	--
		5/16	250*	250*	250*	250*	250*	250*	250*	250*
		3/8	250*	250*	250*	250*	250*	250*	250*	250*
36000 AC with Puron	3/8	5/16	225*	250*	250*	250*	250*	250*	250*	250*
		3/8	250*	250*	250*	250*	250*	250*	250*	250*
42000 AC with Puron	3/8	5/16	175	200	250*	250*	250*	250*	250*	250*
		3/8	250*	250*	250*	250*	250*	250*	250*	250*
48000 AC with Puron	3/8	3/8	250*	250*	250*	250*	250*	250*	250*	250*
49000 AC with Puron	3/8	3/8	250*	250*	250*	250*	250*	250*	250*	250*
60000 AC with Puron	3/8	3/8	250*	250*	250*	250*	250*	250*	250*	250*
61000 AC with Puron	3/8	3/8	250*	250*	250*	250*	250*	250*	250*	250*

*** Maximum actual length not to exceed 200 ft (61 m)**

† Total equivalent length accounts for losses due to elbows or fitting. See the Long Line Guideline for details.

-- = outside acceptable range

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REFRIGERANT CHARGE ADJUSTMENTS

Liquid Line Size	Puron Charge oz/ft
3/8	0.60 (Factory charge for lineset = 9 oz)
5/16	0.40
1/4	0.27

Units are factory charged for 15 ft (4.6 m) of 3/8" liquid line. The factory charge for 3/8" lineset 9 oz. When using other length or diameter liquid lines, charge adjustments are required per the chart above.

Charging Formula:

[(Lineset oz/ft x total length) – (factory charge for lineset)] = charge adjustment

Example 1: System has 15 ft of line set using existing 1/4" liquid line. What charge adjustment is required?

Formula: (.27 oz/ft x 15ft) – (9 oz) = (-4.95) oz.

Net result is to remove 4.95 oz of refrigerant from the system

Example 2: System has 45 ft of existing 5/16" liquid line. What is the charge adjustment?

Formula: (.40 oz/ft. x 45ft) – (9 oz.) = 9 oz.

Net result is to add 9 oz of refrigerant to the system

LONG LINE APPLICATIONS

An application is considered Long Line, when the refrigerant level in the system requires the use of accessories to maintain acceptable refrigerant management for systems reliability. See Accessory Usage Guideline table for required accessories. Defining a system as long line depends on the liquid line diameter, actual length of the tubing, and vertical separation between the indoor and outdoor units.

For Air Conditioner systems, the chart below shows when an application is considered Long Line.

AC WITH PURON® REFRIGERANT LONG LINE DESCRIPTION ft (m)

Beyond these lengths, long line accessories are required

Liquid Line Size	Units On Same Level	Outdoor Below Indoor	Outdoor Above Indoor
1/4	No accessories needed within allowed lengths	No accessories needed within allowed lengths	175 (53.3)
5/16	120 (36.6)	50 (15.2)	120 (36.6)
3/8	80 (24.4)	35 (10.7)	80 (24.4)

Note: See Long Line Guideline for details

VAPOR LINE SIZING AND COOLING CAPACITY LOSS

Acceptable vapor line diameters provide adequate oil return to the compressor while avoiding excessive capacity loss. The suction line diameters shown in the chart below are acceptable for AC systems with Puron refrigerant:

Unit Nominal Size (Btuh)	Maximum Liquid Line Diameters (In. OD)	Vapor Line Diameters (In. OD)	Cooling Capacity Loss (%) Total Equivalent Line Length ft. (m)								
			26–50 (7.9–15.2)	51–80 (15.5–24.4)	81–100 (24.7–30.5)	101–125 (30.8–38.1)	126–150 (38.4–45.7)	151–175 (46.0–53.3)	176–200 (53.6–61.0)	201–225 (61.3–68.6)	226–250 (68.9–76.2)
18000 1 Stage AC with Puron	3/8	1/2	1	2	3	5	6	7	8	9	11
		5/8	0	1	1	1	2	2	2	3	3
		3/4	0	0	0	0	1	1	1	1	1
24000 1 Stage AC with Puron	3/8	5/8	0	1	2	2	3	3	4	5	5
		3/4	0	0	1	1	1	1	1	2	2
		7/8	0	0	0	0	0	1	1	1	1
30000 1 Stage AC with Puron	3/8	5/8	1	2	3	3	4	5	6	7	8
		3/4	0	0	1	1	1	2	2	2	3
		7/8	0	0	0	0	1	1	1	1	1
36000 1 Stage AC with Puron	3/8	5/8	1	2	4	5	6	8	9	10	12
		3/4	0	1	1	2	2	3	3	4	4
		7/8	0	0	0	1	1	1	1	2	2
42000 1 Stage AC with Puron	3/8	3/4	0	1	2	2	3	4	4	5	6
		7/8	0	0	1	1	1	2	2	2	3
		1 1/8	0	0	0	0	0	0	0	0	0
48000, 49000 1 Stage AC with Puron	3/8	3/4	0	1	2	3	4	5	5	6	7
		7/8	0	0	1	1	2	2	2	3	3
		1 1/8	0	0	0	0	0	0	0	1	1
60000, 61000 1 Stage AC with Puron	3/8	3/4	1	2	4	5	6	7	9	10	11
		7/8	0	1	2	2	3	4	4	5	5
		1 1/8	0	0	0	1	1	1	1	1	1

Applications in this area may be long line and may have height restrictions. See the *Residential Piping and Long Line Guideline.*

PHYSICAL DATA

UNIT SIZE–VOLTAGE, SERIES	18–A	24–A	30–A	36–A	42–A	48–A	49–A	60–A	61–A
Operating Weight lb (kg)	125 (56.7)	147 (66.5)	153 (69.3)	165 (74.8)	213 (96.4)	264 (119.7)	231 (104.8)	272 (123.4)	272 (123.4)
Shipping Weight lb (kg)	154 (69.9)	183 (82.8)	188 (85.2)	204 (92.5)	254 (115.2)	317 (143.8)	269 (222.0)	310 (140.6)	310 (140.6)
Compressor Type	Scroll								
REFRIGERANT	Puron® (R–410A)								
Control	TXV (Puron® Hard Shutoff)								
Charge lb (kg)	4.60 (2.09)	6.00 (2.72)	6.81 (3.09)	7.00 (3.18)	8.62 (3.91)	13.0 (5.90)	9.00 (4.08)	14.50 (6.58)	14.50 (6.58)
COND FAN	Propeller Type, Direct Drive								
Air Discharge	Vertical								Vertical
Air Qty (CFM)	1881	2614	2614	3223	3810	4046	4046	4046	4046
Motor HP	1/12	1/10	1/10	1/12	1/5	1/4	1/4	1/4	1/4
Motor RPM	1100	1100	1100	800	800	800	800	800	800
COND COIL									
Face Area (Sq ft)	11.50	15.10	17.20	17.60	25.15	25.15	25.15	30.15	30.15
Fins per In.	25	25	25	25	25	20	20	20	20
Rows	1	1	1	1	1	2	1	2	2
Circuits	3	4	4	4	6	7	7	8	8
VALVE CONNECT. (In. ID)									
Vapor	3/4	3/4	3/4	7/8	7/8	7/8	7/8	7/8	7/8
Liquid	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8
REFRIGERANT TUBES (In. OD)									
Rated Vapor*	3/4			7/8				1–1/8	
Max Liquid Line †	3/8								

* Units are rated with 25 ft (7.6 m) of lineset length. See Vapor Line Sizing and Cooling Capacity Loss table when using other sizes and lengths of lineset.
Note: See unit Installation Instruction for proper installation.

† See *Liquid Line Sizing For Cooling Only Systems with Puron Refrigerant* tables.

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ELECTRICAL DATA

UNIT SIZE	V/PH	OPER VOLTS*		COMPR		FAN	MCA	MIN WIRE SIZE† 60° C	MIN WIRE SIZE† 75° C	MAX LENGTH ft. (m)‡ 60° C	MAX LENGTH ft. (m)‡ 75° C	MAX FUSE** or CKT BRK AMPS
		MAX	MIN	LRA	RLA	FLA						
18–A	208/230/1–60	253	197	48.0	9.0	0.50	11.8	14	14	67 (20.4)	64 (19.5)	20
24–A				58.3	13.5	0.75	17.7	14	14	46 (14.0)	43 (13..1)	25
30–A				64.0	12.8	0.75	16.8	14	14	44 (13.4)	41 (12.5)	25
36–A				77.0	14.1	0.50	18.1	12	12	57 (17.4)	54 (16.5)	30
42–A				112.0	17.9	1.20	23.6	10	10	85 (25.9)	81 (24.7)	40
48–A				109.0	19.0	1.20	26.1	10	10	70 (21.3)	67 (20.4)	40
49–A				117.0	21.8	1.20	28.4	10	10	70 (21.3)	67 (20.4)	40
60–A				135.0	21.4	1.20	28.0	8	10	91 (27.7)	56 (17.1)	40
61–A				134.0	25.0	1.20	32.5	8	10	94 (28.7)	58 (17.7)	50

* Permissible limits of the voltage range at which the unit will operate satisfactorily

† If wire is applied at ambient greater than 30°C, consult table 310–16 of the NEC (NFPA 70). The ampacity of non–metallic–sheathed cable (NM), trade name ROMEX, shall be that of 60°C conditions, per the NEC (NFPA 70) Article 334–80. If other than uncoated (no–plated), 60 or 75°C insulation, copper wire (solid wire for 10 AWG or smaller, stranded wire for larger than 10 AWG) is used, consult applicable tables of the NEC (NFPA 70).

‡ Length shown is as measured one way along wire path between unit and service panel for voltage drop not to exceed 2%.

** Time–Delay fuse.

FLA – Full Load Amps
LRA – Locked Rotor Amps
MCA – Minimum Circuit Amps
RLA – Rated Load Amps

NOTE: Control circuit is 24–V on all units and requires external power source. Copper wire must be used from service disconnect to unit. All motors/compressors contain internal overload protection.

Complies with 2007 requirements of ASHRAE Standards 90.1

CHARGING SUBCOOLING (TXV-TYPE EXPANSION DEVICE)

UNIT SIZE–VOLTAGE, SERIES	REQUIRED SUBCOOLING °F (°C)
18–A	10 (5.6)
24–A	10 (5.6)
30–A	10 (5.6)
36–A	10 (5.6)
42–A	9 (5.0)
48–A	8 (4.4)
49–A	9 (5.0)
60–A	9 (5.0)
61–A	10 (5.6)

A-WEIGHTED SOUND POWER LEVEL (dBA)

Unit Size – Voltage, Series	Standard Rating (dBA)	TYPICAL OCTAVE BAND SPECTRUM (dBA without tone adjustment)						
		125	250	500	1000	2000	4000	8000
18–A	76	52.5	59.0	65.5	70.5	64.5	59.0	54.5
24–A	76	57.5	64.0	69.0	71.0	69.0	64.5	60.0
30–A	76	55.0	63.5	68.0	69.5	67.0	63.5	58.5
36–A	76	50.5	59.5	64.5	70.5	62.0	59.5	54.5
42–A	78	52.5	62.0	66.0	73.5	68.0	62.0	55.5
48–A	78	57.5	61.5	66.0	70.5	65.5	59.5	53.5
49–A	78	51.5	62.0	67.5	73.5	69.0	64.5	62.0
60–A	78	55.0	62.5	67.5	70.5	65.0	61.0	53.5
61–A	78	56.5	63.0	65.5	69.0	67.0	61.5	56.0

NOTE: Tested in accordance with AHRI Standard 270–08 (not listed in AHRI).

A-WEIGHTED SOUND POWER LEVEL (dBA) WITH SOUND SHIELD

Unit Size – Voltage, Series	Standard Rating (dBA)	TYPICAL OCTAVE BAND SPECTRUM (dBA without tone adjustment)						
		125	250	500	1000	2000	4000	8000
18–A	74	55.5	59.0	65.0	68.5	63.5	58.0	52.0
24–A	75	58.0	64.0	69.0	70.5	68.5	64.5	59.5
30–A	75	55.5	63.0	68.0	69.0	67.0	63.0	58.5
36–A	74	51.5	58.5	62.0	65.0	61.0	58.0	52.0
42–A	76	53.0	62.0	65.5	72.0	65.0	61.0	54.0
48–A	76	58.5	61.5	66.0	69.0	64.0	58.5	51.0
49–A	76	53.0	61.5	67.5	72.0	68.0	61.5	59.0
60–A	75	56.5	62.5	66.5	68.0	63.0	59.5	51.5
61–A	75	57.0	63.0	65.5	67.0	65.5	59.0	52.5

NOTE: Tested in accordance with AHRI Standard 270–08 (not listed in AHRI).

ACCESSORY THERMOSTATS

PART NUMBER	PROGRAM	GAS	ELECTRIC	HEAT PUMP	HYBRID HEAT	HEAT	COOL
Performance							
TP–PRH01–A	7–Day	√	√	√	√	3	2
TP–PHP01	7–Day		√	√		3	2
TP–PAC01	7–Day	√	√			1	1
TP–NRH01–A	NP	√	√	√	√	3	2
TP–NHP01	NP		√	√		3	2
TP–NAC01	NP	√	√			1	1
Comfort							
TC–PHP01	5–2 Day		√	√		3	2
TC–PAC01	5–2 Day	√	√			1	1
TC–NHP01	NP		√	√		3	2
TC–NAC01	NP	√	√			1	1
TCSNHP01	NP		√	√		2	1
TCSNAC01	NP	√	√			1	1
Base							
TB–PHP01	5–2 Day	√	√	√		2	1
TB–PAC01	5–2 Day		√			1	1
TB–NHP01	NP	√	√	√		2	1
TB–NAC01	NP					1	1

THERMOSTAT ACCESSORIES		
PART NUMBER	BRIEF DESCRIPTION	THERMOSTATS USED WITH
SYSTXCCRRS01	Indoor Remote Room Temperature Sensor	All TP– thermostats
TP–EXP01–A	ExP[] Computer Programming Accessory	TP–P thermostats
TSTATXXCNV10‡	Thermostat Conversion Kit (4 to 5 wire) – 10 pack	All Carrier[] branded thermostats
TX–LBP01	Large Decorative Backplate	TP–Pxx, TP–Nxx, TC–Pxx
TX–MBP01	Medium Decorative Backplate	TC–Nxx, TB–Pxx
TX–SBP01	Small Decorative Backplate	TB–Nxx
TSTATXXSEN01–B*	Outdoor Air Temperature Sensor	All TP– thermostats

ACCESSORIES

KIT NUMBER	DESCRIPTION	Unit Sizes – Series								
		18–A	24–A	30–A	36–A	42–A	48–A	49–A	60–A	61–A
KAAFT0101AAA	FREEZE THERMOSTAT	X	X	X	X	X	X	X	X	X
KAATD0101TDR	TIME DELAY RELAY	X	X	X	X	X	X	X	X	X
KSALA0301410	LOW AMBIENT PSW	X	X	X	X	X	X	X	X	X
KSALA0601AAA†	MOTORMASTER 230V	X	X	X	X	X	X	X	X	X
HC32GE234	MOTOR FAN BALL BEARING	X								
HC34GE240	MOTOR FAN BALL BEARING		X	X						
HC32GE229	MOTOR FAN BALL BEARING				X					
HC38GE228	MOTOR FAN BALL BEARING					X				
HC40GE228	MOTOR FAN BALL BEARING						X	X	X	X
KSAHS1701AAA	HARD START (CAP / RELAY)	X	X	X	X	X	X	X	X	X
KSACY0101AAA	CYCLE PROTECTOR	X	X	X	X	X	X	X	X	X
KSASF0101AAA	SUPPORT FEET	X	X	X	X	X	X	X	X	X
KAACS0201PTC	START ASSIST PTC	X	X	X	X	X	X	X	X	X
KAALS0201LLS	LIQUID LINE SOLENOID	X	X	X	X	X	X	X	X	X
KAAWS0101AAA	WINTER START	X	X	X	X	X	X	X	X	X
KAACH1701AAA	CRANKCASE HTR	X	X	X	X					
KAACH1601AAA	CRANKCASE HTR					X	S	S	S	S
KSATX0201PUR	TXV PURON HSO	X	X	X						
KSATX0301PUR	TXV PURON HSO				X					
KSATX0401PUR	TXV PURON HSO					X		X		
KSATX0501PUR	TXV PURON HSO						X		X	X
KSASH0601COP	SOUND HOOD	X	X	X	X			X		
KSASH2101COP	SOUND HOOD					X	X		X	X
KAALP0401PUR	LOW PRESSURE SWITCH	X	X	X	X	X	X	X	X	X
KAAHI0501PUR	HIGH PRESSURE SWITCH	X	X	X	X	X	X	X	X	X

† Required accessories include ball bearing fan motor, compressor start assist (CAP / Relay), crankcase heater, evaporator freeze stat, hard shut–off TXV.

X = Accessory / S – Standard

ACCESSORY USAGE GUIDELINE

ACCESSORY	REQUIRED FOR LOW-AMBIENT COOLING APPLICATIONS (Below 55°F/12.8°C)	REQUIRED FOR LONG LINE APPLICATIONS* (Over 80 ft./24.38 m)	REQUIRED FOR SEA COAST APPLICATIONS (Within 2 miles/3.22 km)
Ball Bearing Fan Motor	Yes†	No	No
Compressor Start Assist Capacitor and Relay	Yes	Yes	No
Crankcase Heater	Yes	Yes	No
Evaporator Freeze Thermostat	Yes	No	No
Hard Shut-Off TXV	Yes	Yes	Yes
Liquid Line Solenoid Valve	No	No	No
Motor Master® Control or Low-ambient Pressure Switch	Yes	No	No
Support Feet	Recommended	No	Recommended
Winter Start Control	Yes	No	No

* For tubing line sets between 80 and 200 ft. (24.38 and 60.96 m) and/or 20 ft. (6.09 m) vertical differential, refer to Residential Split-System Longline Application Guideline.

† Required for Low-Ambient Controller (full modulation feature) MotorMaster® Control.

Accessory Description and Usage (Listed Alphabetically)

1. Ball-Bearing Fan Motor

A fan motor with ball bearings which permits speed reduction while maintaining bearing lubrication.

Usage Guideline:

Required on all units when MotorMaster® is used.

2. Compressor Start Assist - Capacitor and Relay

Start capacitor and relay gives a "hard" boost to compressor motor at each start up.

Usage Guideline:

Required for reciprocating compressors in the following applications:

- Long line
- Low ambient cooling
- Hard shut off expansion valve on indoor coil
- Liquid line solenoid on indoor coil

Required for single-phase scroll compressors in the following applications:

- Long line
- Low ambient cooling

Suggested for all compressors in areas with a history of low voltage problems.

3. Compressor Start Assist — PTC Type

Solid state electrical device which gives a "soft" boost to the compressor at each start-up.

Usage Guideline:

Suggested in installations with marginal power supply.

4. Crankcase Heater

An electric resistance heater which mounts to the base of the compressor to keep the lubricant warm during off cycles. Improves compressor lubrication on restart and minimizes the chance of liquid slugging.

Usage Guideline:

Required in low ambient cooling applications.

Required in long line applications.

Suggested in all commercial applications.

5. Cycle Protector

The cycle protector is designed to prevent compressor short cycling. This control provides an approximate 5-minute delay after power to the compressor has been interrupted for any reason, including power outage, protector control trip, thermostat jiggling, or normal cycling.

6. Evaporator Freeze Thermostat

An SPST temperature-actuated switch that stops unit operation when evaporator reaches freeze-up conditions.

Usage Guideline:

Required when low ambient kit has been added.

7. Low-Ambient Pressure Switch Kit

A long life pressure switch which is mounted to outdoor unit service valve. It is designed to cycle the outdoor fan motor in order to maintain head pressure within normal operating limits (approximately 100 psig to 225 psig). The control will maintain working head pressure at low-ambient temperatures down to 0°F (-18°C) when properly installed.

Usage Guideline:

A Low-Ambient Pressure Switch or MotorMaster® Low-Ambient Controller must be used when cooling operation is used at outdoor temperatures below 55°F (12.8°C).

8. MotorMaster® Low-Ambient Controller

A fan-speed control device activated by a temperature sensor, designed to control condenser fan motor speed in response to the saturated, condensing temperature during operation in cooling mode only. For outdoor temperatures down to -20°F (-28.9°C), it maintains condensing temperature at 100°F ±10°F (37.8°C ± 5.5°C).

Usage Guideline:

A MotorMaster® Low Ambient Controller or Low-Ambient Pressure Switch must be used when cooling operation is used at outdoor temperatures below 55°F (12.8°C).

Suggested for all commercial applications.

9. Outdoor Air Temperature Sensor

Designed for use with Carrier Thermostats listed in this publication. This device enables the thermostat to display the outdoor temperature. This device also

is required to enable special thermostat features such as auxiliary heat lock out.

Usage Guideline:

Suggested for all Carrier thermostats listed in this publication.

Accessory Description and Usage (Listed Alphabetically) (Continued)

10. Sound Hood

Wraparound sound reducing cover for the compressor. Reduces the sound level by about 2 dBA.

Usage Guideline:

Suggested when unit is installed closer than 15 ft (4.57 m) to quiet areas, bedrooms, etc.

Suggested when unit is installed between two houses less than 10 ft (3.05 m) apart.

11. Support Feet

Four stick-on plastic feet that raise the unit 4 in. (101.6 mm) above the mounting pad. This allows sand, dirt, and other debris to be flushed from the unit base, minimizing corrosion.

Usage Guideline:

Suggested in the following applications:

Coastal installations.

Windy areas or where debris is normally circulating.

Rooftop installations.

For improved sound ratings.

12. Thermostatic Expansion Valve (TXV)

A modulating flow-control valve which meters refrigerant liquid flow rate into the evaporator in response to the superheat of the refrigerant gas leaving the evaporator.

Kit includes valve, adapter tubes, and external equalizer tube. Hard shut off types are available.

NOTE: When using a hard shut off TXV with single phase reciprocating compressors, a Compressor Start Assist Capacitor and Relay is required.

Usage Guideline:

Required to achieve AHRI ratings in certain equipment combinations. Refer to combination ratings.

Hard shut off TXV or LLS required in air conditioner long line applications.

Required for use on all zoning systems.

13. Time-Delay Relay

An SPST delay relay which briefly continues operation of indoor blower motor to provide additional cooling after the compressor cycles off.

NOTE: Most indoor unit controls include this feature. For those that do not, use the guideline below.

Usage Guideline:

For improved efficiency ratings for certain combinations of indoor and outdoor units. Refer to AHRI Unitary Directory.

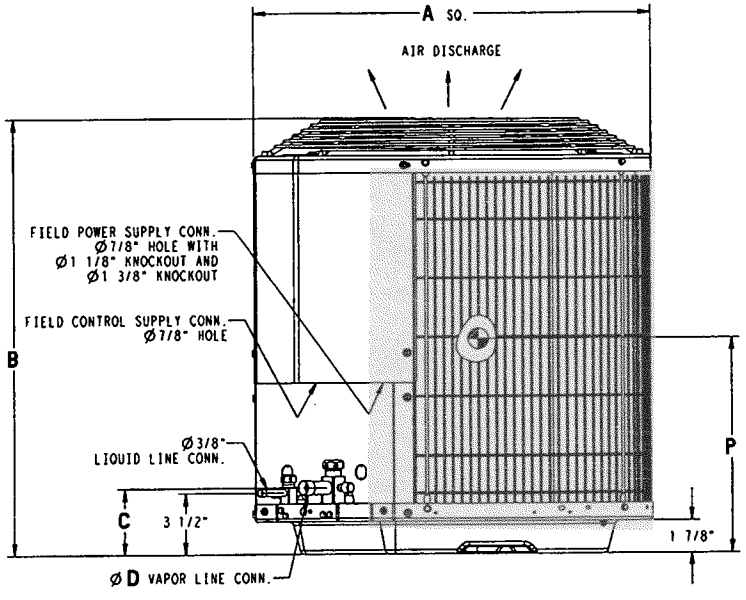
14. Winter Start Control

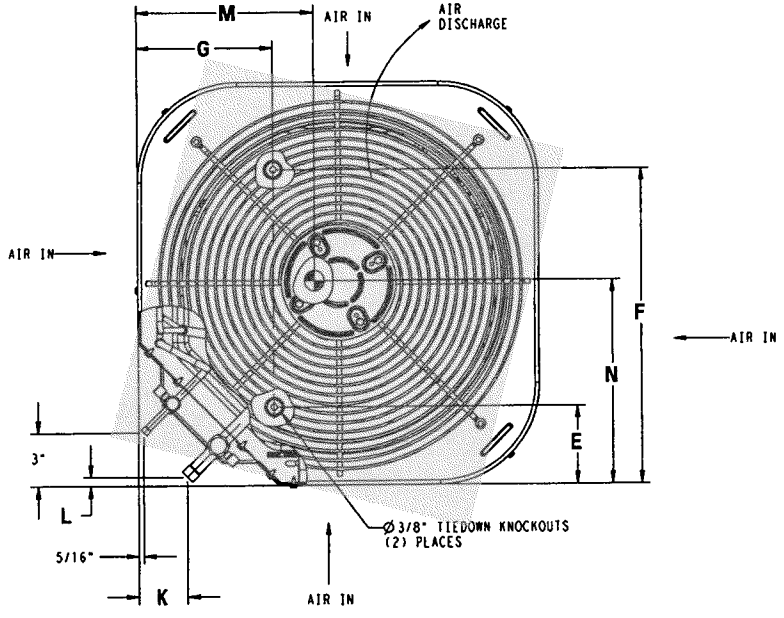
This control is designed to alleviate nuisance opening of the low-pressure switch by bypassing it for the first 3 minutes of operation.

DIMENSIONS - ENGLISH (18 - 30)

UNIT	SERIES	ELECTRICAL CHARACTERISTICS				A	B	C	D	E	F	G	K	L	M	N	P	OPERATING WEIGHT (LBS)	SHIPPING WEIGHT (LBS)	SHIPPING DIMENSIONS (L x W x H)
CA16NA018	A	X	0	0	0	31 3/16"	28 7/16"	3 3/4"	3/4"	6 9/16"	24 11/16"	9 1/8"	2 13/16"	1/2"	13"	12"	12 1/2"	142	163	32 3/16" X 32 3/16" X 30 5/8"
CA16NA024	A	X	0	0	0	31 3/16"	28 7/16"	3 3/4"	3/4"	6 9/16"	24 11/16"	9 1/8"	2 13/16"	1/2"	13"	12"	12 1/2"	142	163	32 3/16" X 32 3/16" X 30 5/8"
CA16NA030	A	X	0	0	0	31 3/16"	31 13/16"	3 3/4"	3/4"	6 9/16"	24 11/16"	9 1/8"	2 13/16"	1/2"	17"	16 1/2"	14 1/2"	150	171	32 3/16" X 32 3/16" X 34"
		208-230-1-60	230-1-60	208/230-3-60	460-3-60															

X = YES
O = NO



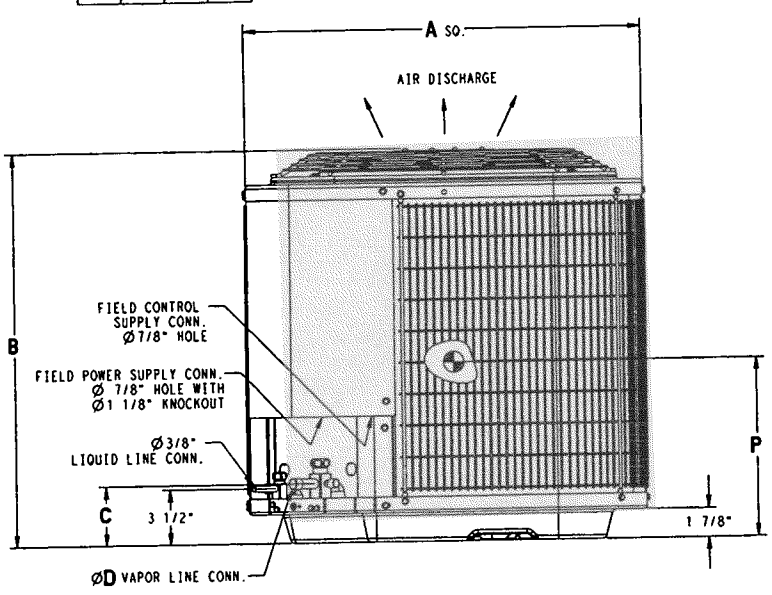


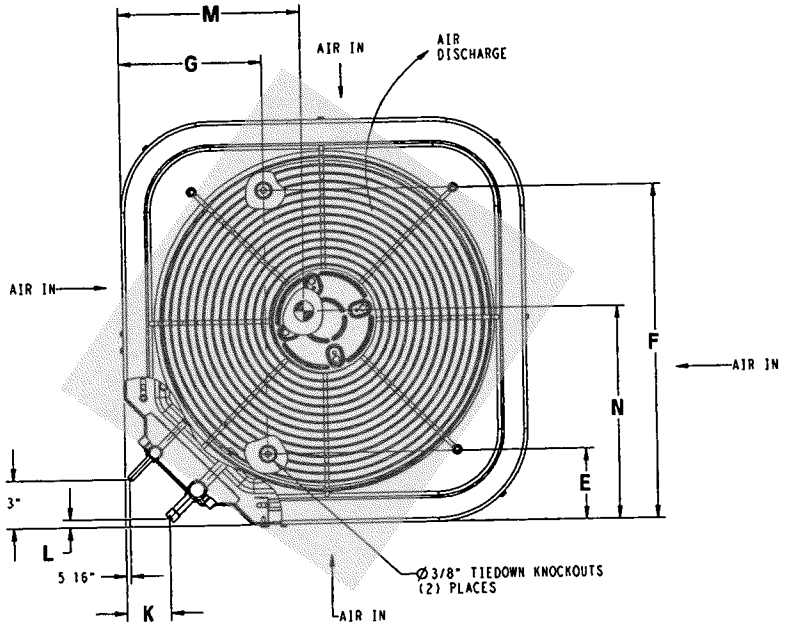
UNIT SIZE	MINIMUM MOUNTING PAD DIMENSIONS
	23 1/2" X 23 1/2"
--	26" X 26"
18,24,30	31 1/2" X 31 1/2"
--	35" X 35"

DIMENSIONS - ENGLISH (36 - 61)

UNIT	SERIES	ELECTRICAL CHARACTERISTICS				A	B	C	D	E	F	G	K	L	M	N	P	OPERATING WEIGHT (lbs)	SHIPPING WEIGHT (lbs)	SHIPPING DIMENSIONS (L x W x H)
CA16NA036	A	X	0	0	0	35"	28 5/16"	3 7/8"	7/8"	6 9/16"	28 7/16"	9 1/8"	2 15/16"	5/8"	16"	16"	13"	165	204	36 1/8" X 39 5/16" X 32 9/16"
CA16NA042	A	X	0	0	0	35"	39 1/8"	3 7/8"	7/8"	6 9/16"	28 7/16"	9 1/8"	2 15/16"	5/8"	16 1/2"	17 1/2"	17 1/2"	213	254	36 1/8" X 39 5/16" X 42 3/4"
CA16NA048	A	X	0	0	0	35"	39 1/8"	3 7/8"	7/8"	6 9/16"	28 7/16"	9 1/8"	2 15/16"	5/8"	17 1/2"	16 1/2"	15"	264	317	36 1/8" X 39 5/16" X 42 3/4"
CA16NA049	A	X	0	0	0	35"	39 1/8"	3 7/8"	7/8"	6 9/16"	28 7/16"	9 1/8"	2 15/16"	5/8"	17 1/2"	16 1/2"	15"	231	269	36 1/8" X 39 5/16" X 42 3/4"
CA16NA060	A	X	0	0	0	35"	45 15/16"	3 7/8"	7/8"	6 9/16"	28 7/16"	9 1/8"	2 15/16"	5/8"	16 1/2"	17"	16 1/4"	272	310	36 1/8" X 39 5/16" X 49 9/16"
CA16NA061	A	X	0	0	0	35"	45 15/16"	3 7/8"	7/8"	6 9/16"	28 7/16"	9 1/8"	2 15/16"	5/8"	16 1/2"	17"	16 1/4"	272	310	36 1/8" X 39 5/16" X 49 9/16"
		208-230-1-60	230-1-60	208/230-3-60	460-3-60															

X = YES
0 = NO



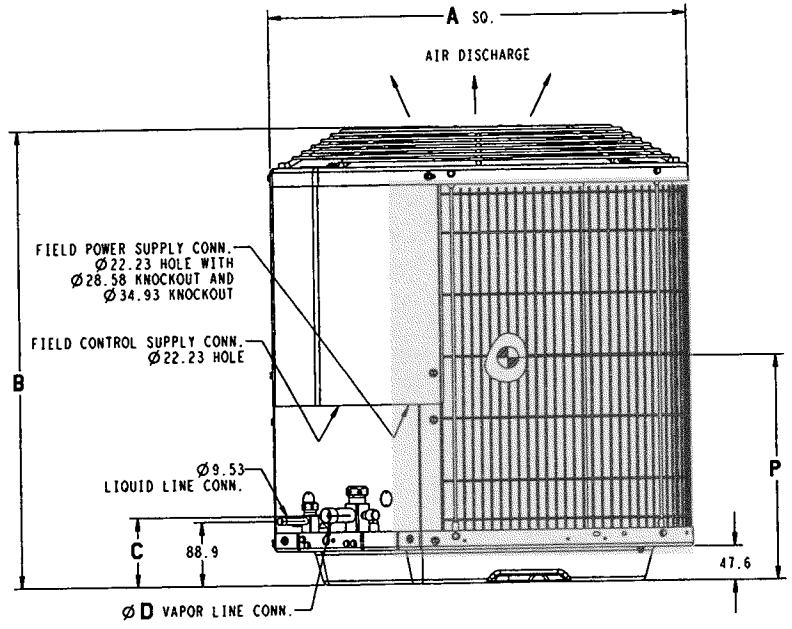


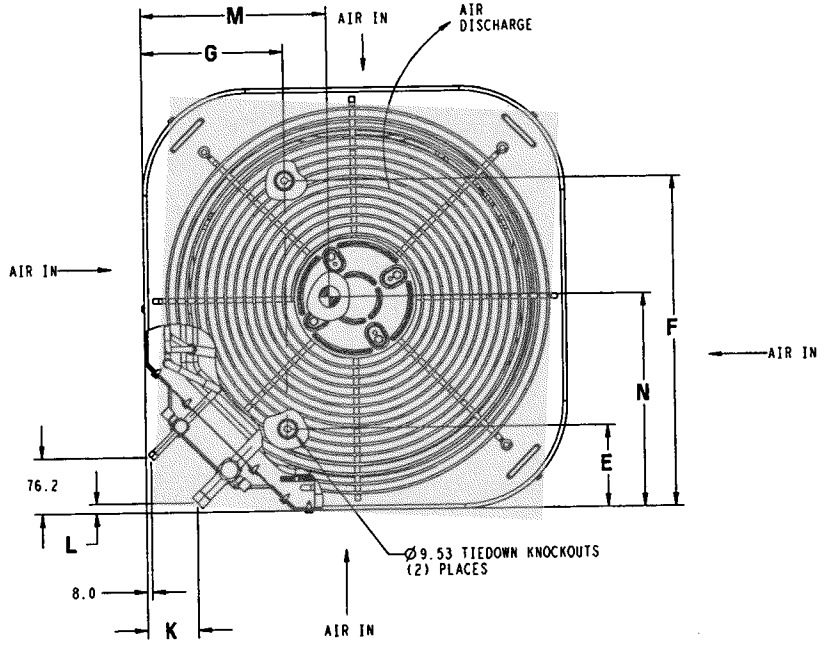
UNIT SIZE	MINIMUM MOUNTING PAD DIMENSIONS
-	26" X 26"
-	31 1/2" X 31 1/2"
36, 42, 48, 49, 60, 61	35" X 35"

DIMENSIONS - SI (18 - 30)

UNIT	SERIES	ELECTRICAL CHARACTERISTICS				A	B	C	D	E	F	G	K	L	M	N	P	OPERATING WEIGHT (Kgs)	SHIPPING WEIGHT (Kgs)	SHIPPING DIMENSIONS (L x W x H)
CA16NA018	A	X	O	O	O	792.2	722.3	95.2	19.0	166.7	627.1	231.8	71.4	12.7	330.0	305.0	318.0	64.4	73.9	817.6 x 817.6 x 777.9
CA16NA024	A	X	O	O	O	792.2	722.3	95.2	19.0	166.7	627.1	231.8	71.4	12.7	330.0	305.0	318.0	64.4	73.9	817.6 x 817.6 x 777.9
CA16NA030	A	X	O	O	O	792.2	808.0	95.2	19.0	166.7	627.1	231.8	71.4	12.7	432.0	419.0	368.0	68.0	77.6	817.6 x 817.6 x 863.6
		208-230-1-60	230-1-60	208/230-3-60	460-3-60															

X = YES
O = NO



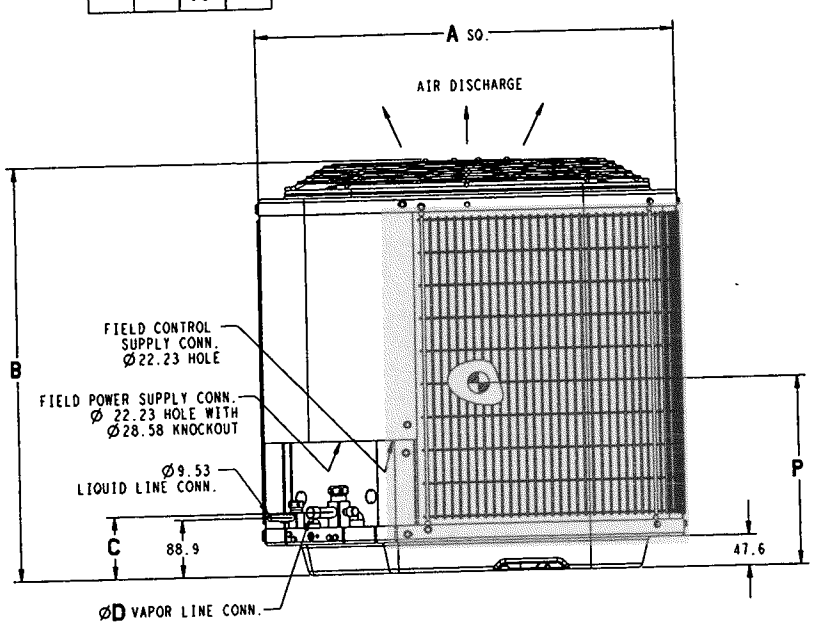


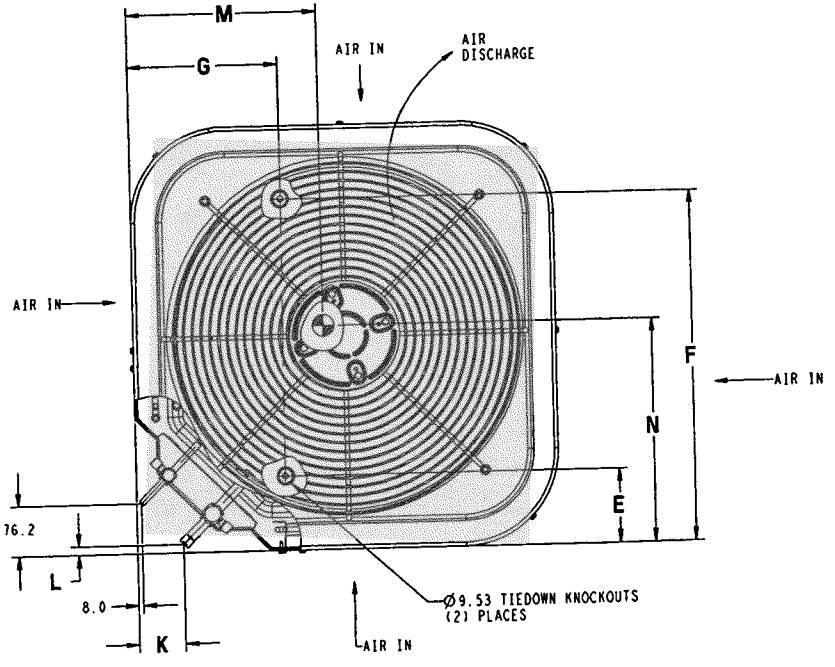
UNIT SIZE	MINIMUM MOUNTING PAD DIMENSIONS
	596.9 X 596.9
--	660.4 X 660.4
18,24,30	800.1 X 800.1
--	889.0 X 889.0

DIMENSIONS - SI (36 - 61)

UNIT	SERIES	ELECTRICAL CHARACTERISTICS				A	B	C	D	E	F	G	K	L	M	N	P	OPERATING WEIGHT (Kgs)	SHIPPING WEIGHT (Kgs)	SHIPPING DIMENSIONS (L x W x H)
CA16NA036	A	X	O	O	O	889.0	719.2	98.4	22.2	166.7	722.3	231.8	74.6	15.9	406.4	406.4	330.2	74.8	92.5	917.6 X 998.6 X 827.1
CA16NA042	A	X	O	O	O	889.0	993.8	98.4	22.2	166.7	722.3	231.8	74.6	15.9	419.1	444.5	444.5	96.4	115.2	917.6 X 998.6 X 1085.8
CA16NA048	A	X	O	O	O	889.0	993.8	98.4	22.2	166.7	722.3	231.8	74.6	15.9	444.5	419.1	381.0	119.7	143.8	917.6 X 998.6 X 1085.8
CA16NA049	A	X	O	O	O	889.0	993.8	98.4	22.2	166.7	722.3	231.8	74.6	15.9	444.5	419.1	381.0	104.8	122.0	917.6 X 998.6 X 1085.8
CA16NA060	A	X	O	O	O	889.0	1166.8	98.4	22.2	166.7	722.3	231.8	74.6	15.9	419.1	431.8	412.8	123.4	140.6	917.6 X 998.6 X 1258.9
CA16NA061	A	X	O	O	O	889.0	1166.8	98.4	22.2	166.7	722.3	231.8	74.6	15.9	419.1	431.8	412.8	123.4	140.6	917.6 X 998.6 X 1258.9
		208-230-1-60	230-1-60	208/230-3-60	460-3-60															

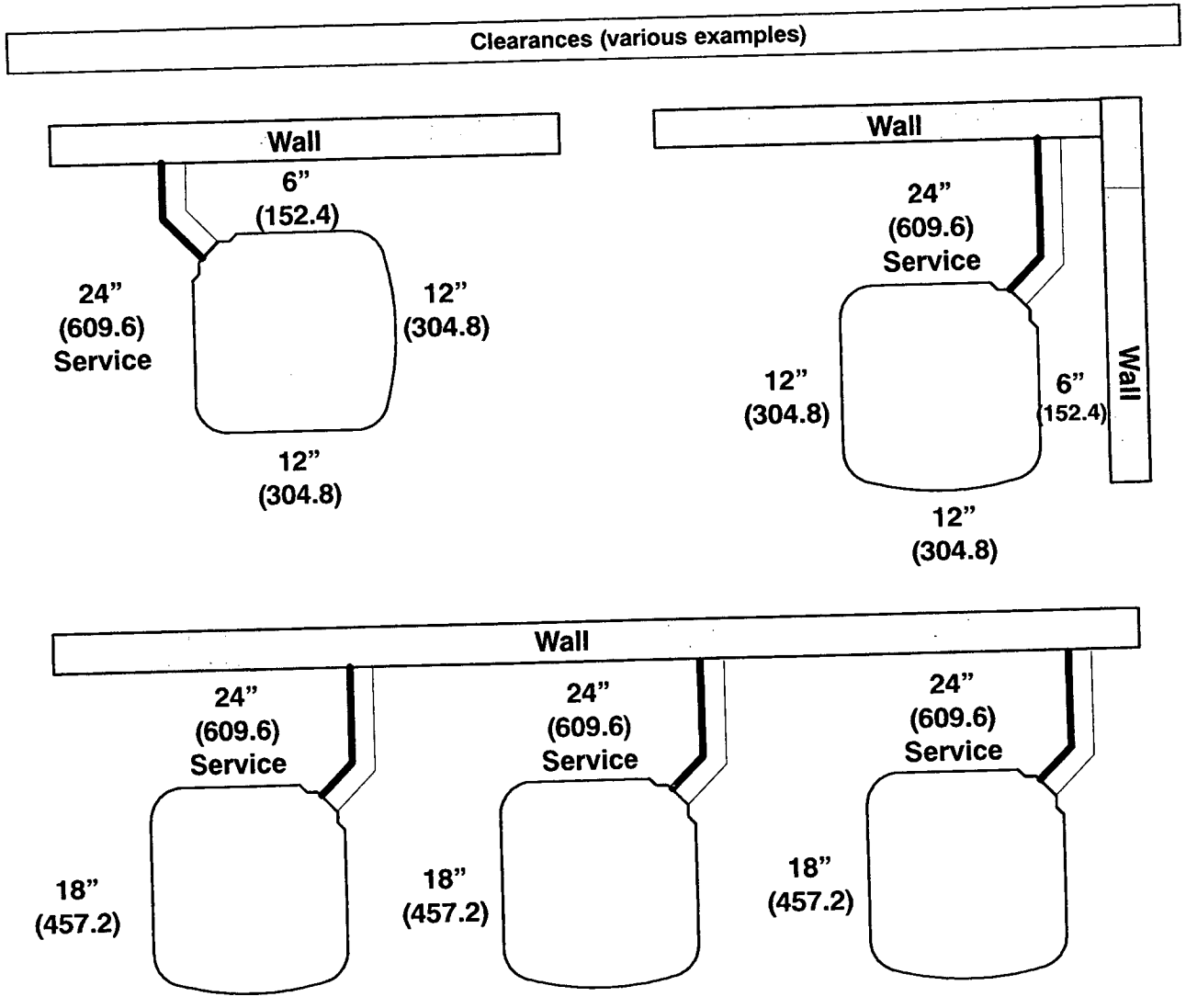
X = YES
O = NO





UNIT SIZE	MINIMUM MOUNTING PAD DIMENSIONS
-	660.4 X 660.4
-	800.1 X 800.1
36, 42, 48, 49, 60, 61	889.0 X 889.0

CLEARANCES



Note: Numbers in ( ) = mm

IMPORTANT: When installing multiple units in an alcove, roof well, or partially enclosed area, ensure there is adequate ventilation to prevent re-circulation of discharge air.

CONSTRUCTION PERMIT

NEW JERSEY UNIFORM CONSTRUCTION CODE

Date Issued

Permit #

IDENTIFICATION Block 895 Lot 9 Qualification Code

Work Site Location 336 RAN COCAS, DR
BRICK NJ 08724

Owner in Fee COOK
SAME

[redacted]

Contractor CARTERS HEATING & COOLING

Address 189 ROUTE 9, UNIT 86
TOMS RIVER NJ 08753

Tel. (732) 341-0977

Lic. No. or Bldrs. Reg. No. 13VH00160300
22-3778448

is hereby granted permission to perform the following work:

[ ] BUILDING	[X] PLUMBING	[ ] LEAD HAZARD ABATEMENT
[X] ELECTRICAL	[X] FIRE PROTECTION	[ ] DEMOLITION
[ ] ELEVATOR DEVICES	[ ] ASBESTOS ABATEMENT (Subchapter 8 only)	[ ] OTHER

DESCRIPTION OF WORK: REPLACING EXISTING FURNACE A/C ECOIL

NOTE: If construction does not commence within one (1) year of date of issuance, or if construction ceases for a period of six (6) months, this permit is void.

Estimated Cost of Work $ 8200.00

Construction Official

Date

PAYMENTS (Office Use Only)

Building
Electrical
Plumbing
Fire Protection
Elevator Devices
Other
DCA State Permit Fee
Cert. of Occupancy
Other
Total
Check No.
Cash
Collected by

(see reverse side)

U.C.C. F170 (rev. 01/04)

1 WHITE–INSPECTOR 2 CANARY–OFFICE 3 PINK–TAX ASSESSOR 4 GOLD–APPLICANT

REQUIRED INSPECTIONS

Construction work must be inspected in accordance with the State Uniform Construction Code Regulations N.J.A.C. 5:23-2.18. This agency will carry out such periodic inspections during the progress of work as are necessary to insure that work installed conforms with the requirements of the Uniform Construction Code.

The owner or other responsible person in charge of work must notify this agency when work is ready for any required inspections specified below. Requests for inspections must be made at least 24 hours prior to the time the inspection is desired. Inspections will be performed within three business days of the time for which they are requested. The work must not proceed in a manner which will preclude the inspection until it has been made and approval given.

☐ Required inspections for all subcodes for one- and two-family dwellings are as follows:

1. The bottom of footing trenches before placement of footings, except that in the case of pile foundations, inspections shall be made in accordance with the requirements of the building subcode.
2. Foundations and all walls up to grade level prior to back filling.
3. Utility services, including septic.
4. Radon Inspection
5. All structural framing, connections, wall and roof sheathing and insulation; electrical rough wiring, panel and service installation; rough plumbing. The framing inspection shall take place after the rough electrical and plumbing inspections and after the installation of the heating, ventilation and/or air conditioning duct system. The insulation inspection shall be performed after all other subcode rough inspections and prior to the installation of any interior finish material.

☐ Additional required inspections for all subcodes of construction, for other than one- and two-family dwellings, are fire suppression systems, heat producing devices and Barrier Free subcode accessibility, if applicable.

☐ Required special inspections. The applicant by accepting the permit will be deemed to have consented to these requirements:

☐ A final inspection is required for each applicable subcode area before a final Certificate of Occupancy or Approval may be issued. The final inspections include the installation of all interior and exterior finish materials, sealing of exterior joints, mechanical system and other required equipment; electrical wiring, devices and fixtures; plumbing pipes, trim and fixtures; tests required by any provision of the adopted subcodes, Barrier Free accessibility, if applicable; and verification of compliance with NJAC 5:23-3.5, "Posting structures".

☐ A complete copy of released plans must be kept on the job site.

CONSTRUCTION PERMIT

NEW JERSEY UNIFORM CONSTRUCTION CODE

Date Issued

Permit #

IDENTIFICATION Block 895 Lot 9 Qualification Code

Work Site Location 336 RAN COCAS, DR
BRICK NJ 08724

Owner in Fee COOK

Address SAME

Tel. [redacted]

Contractor CARTERS HEATING & COOLING

Address 1889 ROUTE 9, UNIT 86
TOMS RIVER NJ 08753

Tel. (732) 341-0977

Lic. No. or Bldrs. Reg. No. 13VH00160300
22-3778448

Is hereby granted permission to perform the following work:

[ ] BUILDING	[X] PLUMBING	[ ] LEAD HAZARD ABATEMENT
[X] ELECTRICAL	[X] FIRE PROTECTION	[ ] DEMOLITION
[ ] ELEVATOR DEVICES	[ ] ASBESTOS ABATEMENT (Subchapter 8 only)	[ ] OTHER

DESCRIPTION OF WORK: REPLACING EXISTING FURNACE A/C & COIL

NOTE: If construction does not commence within one (1) year of date of issuance, or if construction ceases for a period of six (6) months, this permit is void.

Estimated Cost of Work $ 8200.00

Construction Official

Date

PAYMENTS (Office Use Only)

Building
Electrical
Plumbing
Fire Protection
Elevator Devices
Other
DCA State Permit Fee
Cert. of Occupancy
Other
Total
Check No.
Cash
Collected by

(see reverse side)

U.C.C. F170 (rev. 01/04)

1 WHITE–INSPECTOR 2 CANARY–OFFICE 3 PINK–TAX ASSESSOR 4 GOLD–APPLICANT

REQUIRED INSPECTIONS

Construction work must be inspected in accordance with the State Uniform Construction Code Regulations N.J.A.C. 5:23-2.18. This agency will carry out such periodic inspections during the progress of work as are necessary to insure that work installed conforms with the requirements of the Uniform Construction Code.

The owner or other responsible person in charge of work must notify this agency when work is ready for any required inspections specified below. Requests for inspections must be made at least 24 hours prior to the time the inspection is desired. Inspections will be performed within three business days of the time for which they are requested. The work must not proceed in a manner which will preclude the inspection until it has been made and approval given.

☐ Required inspections for all subcodes for one- and two-family dwellings are as follows:

1. The bottom of footing trenches before placement of footings, except that in the case of pile foundations, inspections shall be made in accordance with the requirements of the building subcode.
2. Foundations and all walls up to grade level prior to back filling.
3. Utility services, including septic.
4. Radon Inspection
5. All structural framing, connections, wall and roof sheathing and insulation; electrical rough wiring, panel and service installation; rough plumbing. The framing inspection shall take place after the rough electrical and plumbing inspections and after the installation of the heating, ventilation and/or air conditioning duct system. The insulation inspection shall be performed after all other subcode rough inspections and prior to the installation of any interior finish material.

☐ Additional required inspections for all subcodes of construction, for other than one- and two-family dwellings, are fire suppression systems, heat producing devices and Barrier Free subcode accessibility, if applicable.

☐ Required special inspections. The applicant by accepting the permit will be deemed to have consented to these requirements:

☐ A final inspection is required for each applicable subcode area before a final Certificate of Occupancy or Approval may be issued. The final inspections include the installation of all interior and exterior finish materials, sealing of exterior joints, mechanical system and other required equipment; electrical wiring, devices and fixtures; plumbing pipes, trim and fixtures; tests required by any provision of the adopted subcodes, Barrier Free accessibility, if applicable; and verification of compliance with NJAC 5:23-3.5, "Posting structures".

☐ A complete copy of released plans must be kept on the job site.

CONSTRUCTION PERMIT

NEW JERSEY UNIFORM CONSTRUCTION CODE

Date Issued

Permit #

IDENTIFICATION Block 895 Lot 9 Qualification Code

Work Site Location 336 RANCOCAS, DR BRICK NJ 08724

Owner in Fee COOK

Address SAME

Tel. [redacted]

Contractor CARTERS HEATING & COOLING

Address 189 ROUTE 9, UNIT 86 TOMS RIVER NJ 08755

Tel. (732) 341-0777

Lic. No. or Bldrs. Reg. No. 13VH00160300 22-3778448

Is hereby granted permission to perform the following work:

[ ] BUILDING	[X] PLUMBING	[ ] LEAD HAZARD ABATEMENT
[X] ELECTRICAL	[X] FIRE PROTECTION	[ ] DEMOLITION
[ ] ELEVATOR DEVICES	[ ] ASBESTOS ABATEMENT (Subchapter 8 only)	[ ] OTHER

DESCRIPTION OF WORK: REPLACING EXISTING FURNACE A/C ECOIL

NOTE: If construction does not commence within one (1) year of date of issuance, or if construction ceases for a period of six (6) months, this permit is void.

Estimated Cost of Work $ 8200.00

Construction Official

Date

PAYMENTS (Office Use Only)

Building

Electrical

Plumbing

Fire Protection

Elevator Devices

Other

DCA State Permit Fee

Cert. of Occupancy

Other

Total

Check No.

Cash

Collected by

(see reverse side)

U.C.C. F170 (rev. 01/04)

1 WHITE–INSPECTOR 2 CANARY–OFFICE 3 PINK–TAX ASSESSOR 4 GOLD–APPLICANT

REQUIRED INSPECTIONS

Construction work must be inspected in accordance with the State Uniform Construction Code Regulations N.J.A.C. 5:23-2.18. This agency will carry out such periodic inspections during the progress of work as are necessary to insure that work installed conforms with the requirements of the Uniform Construction Code.

The owner or other responsible person in charge of work must notify this agency when work is ready for any required inspections specified below. Requests for inspections must be made at least 24 hours prior to the time the inspection is desired. Inspections will be performed within three business days of the time for which they are requested. The work must not proceed in a manner which will preclude the inspection until it has been made and approval given.

☐ Required inspections for all subcodes for one- and two-family dwellings are as follows:

1. The bottom of footing trenches before placement of footings, except that in the case of pile foundations, inspections shall be made in accordance with the requirements of the building subcode.
2. Foundations and all walls up to grade level prior to back filling.
3. Utility services, including septic.
4. Radon Inspection
5. All structural framing, connections, wall and roof sheathing and insulation; electrical rough wiring, panel and service installation; rough plumbing. The framing inspection shall take place after the rough electrical and plumbing inspections and after the installation of the heating, ventilation and/or air conditioning duct system. The insulation inspection shall be performed after all other subcode rough inspections and prior to the installation of any interior finish material.

☐ Additional required inspections for all subcodes of construction, for other than one- and two-family dwellings, are fire suppression systems, heat producing devices and Barrier Free subcode accessibility, if applicable.

☐ Required special inspections. The applicant by accepting the permit will be deemed to have consented to these requirements:

☐ A final inspection is required for each applicable subcode area before a final Certificate of Occupancy or Approval may be issued. The final inspections include the installation of all interior and exterior finish materials, sealing of exterior joints, mechanical system and other required equipment; electrical wiring, devices and fixtures; plumbing pipes, trim and fixtures; tests required by any provision of the adopted subcodes, Barrier Free accessibility, if applicable; and verification of compliance with NJAC 5:23-3.5, "Posting structures".

☐ A complete copy of released plans must be kept on the job site.

CONSTRUCTION PERMIT

NEW JERSEY UNIFORM CONSTRUCTION CODE

Date Issued

Permit #

IDENTIFICATION Block 895 Lot 9 Qualification Code

Work Site Location 336 RANCOCAS, DR BRICK NJ 08724

Owner in Fee COOK

Address SAME

Tel. [redacted]

Contractor CARTERS HEATING & COOLING

Address 189 ROUTE 9, UNIT 86 TOMS RIVER NJ 08753

Tel. (732) 341-0977

Lic. No. or Bldrs. Reg. No. 13VH00160300 22-3778448

Is hereby granted permission to perform the following work:

[ ] BUILDING	[X] PLUMBING	[ ] LEAD HAZARD ABATEMENT
[X] ELECTRICAL	[X] FIRE PROTECTION	[ ] DEMOLITION
[ ] ELEVATOR DEVICES	[ ] ASBESTOS ABATEMENT (Subchapter 8 only)	[ ] OTHER

DESCRIPTION OF WORK: REPLACING EXISTING FURNACE A/C & COIL

NOTE: If construction does not commence within one (1) year of date of issuance, or if construction ceases for a period of six (6) months, this permit is void.

Estimated Cost of Work $ 8200.00

Construction Official

Date

PAYMENTS (Office Use Only)

Building

Electrical

Plumbing

Fire Protection

Elevator Devices

Other

DCA State Permit Fee

Cert. of Occupancy

Other

Total

Check No.

Cash

Collected by

(see reverse side)

U.C.C. F170 (rev. 01/04)

1 WHITE–INSPECTOR 2 CANARY–OFFICE 3 PINK–TAX ASSESSOR 4 GOLD–APPLICANT

REQUIRED INSPECTIONS

Construction work must be inspected in accordance with the State Uniform Construction Code Regulations N.J.A.C. 5:23-2.18. This agency will carry out such periodic inspections during the progress of work as are necessary to insure that work installed conforms with the requirements of the Uniform Construction Code.

The owner or other responsible person in charge of work must notify this agency when work is ready for any required inspections specified below. Requests for inspections must be made at least 24 hours prior to the time the inspection is desired. Inspections will be performed within three business days of the time for which they are requested. The work must not proceed in a manner which will preclude the inspection until it has been made and approval given.

☐ Required inspections for all subcodes for one- and two-family dwellings are as follows:

1. The bottom of footing trenches before placement of footings, except that in the case of pile foundations, inspections shall be made in accordance with the requirements of the building subcode.
2. Foundations and all walls up to grade level prior to back filling.
3. Utility services, including septic.
4. Radon Inspection
5. All structural framing, connections, wall and roof sheathing and insulation; electrical rough wiring, panel and service installation; rough plumbing. The framing inspection shall take place after the rough electrical and plumbing inspections and after the installation of the heating, ventilation and/or air conditioning duct system. The insulation inspection shall be performed after all other subcode rough inspections and prior to the installation of any interior finish material.

☐ Additional required inspections for all subcodes of construction, for other than one- and two-family dwellings, are fire suppression systems, heat producing devices and Barrier Free subcode accessibility, if applicable.

☐ Required special inspections. The applicant by accepting the permit will be deemed to have consented to these requirements:

☐ A final inspection is required for each applicable subcode area before a final Certificate of Occupancy or Approval may be issued. The final inspections include the installation of all interior and exterior finish materials, sealing of exterior joints, mechanical system and other required equipment; electrical wiring, devices and fixtures; plumbing pipes, trim and fixtures; tests required by any provision of the adopted subcodes, Barrier Free accessibility, if applicable; and verification of compliance with NJAC 5:23-3.5, "Posting structures".

☐ A complete copy of released plans must be kept on the job site.