



CONSTRUCTION PERMIT APPLICATION

Applicant Completes: Sections I, II, III (optional), IV, VI, and VII C-19-001354

I. IDENTIFICATION

1. Proposed Work Site at: 234 20th AVE, BRICK NJ

2. Name of Owner in Fee: RICHARD RABENDER
Tel. () e-mail ()
Address 232 20th AVE, BRICK NJ 08724
street municipality zip code

3. Ownership in Fee: Public _____ Private ☒ _____

4. Principal Contractor: Olin Forsberg Tel. (732) 773 8880
Address 1212 Tyler St Point Pleasant NJ e-mail Olin.Forsberg@comcast.net

License No. OR, if new home, Builder Reg. No. 1SHC00598300 Exp. Date 6/30/2020
Home Improvement Contractor Registration No. or Exemption Reason (if applicable): 134104733800

Federal Emp. ID No. _____ FAX: () _____

5. Architect or Engineer _____ Contact _____
Address _____ e-mail _____
Tel. () _____ FAX: () _____

6. Responsible Person in Charge once Work has Begun _____
Tel. () _____ FAX: () _____

V. FEE SUMMARY (for office use only)		Update	Update
1. Building	\$		
2. Electrical	\$	<u>150-1</u>	
3. Plumbing	\$		
4. Fire Protection	\$		
5. Elevator Devices Mechanical	\$	<u>200-1</u>	
6. Subtotal	\$		
7. Less 20% for State Plan Review	\$		
8. Subtotal	\$		
9. State Permit Surcharge Fee	\$	<u>7-</u>	
10. Subtotal	\$		
11. Cert. of Occupancy	\$		
12. Other	\$		
13. TOTAL	\$	<u>357-</u>	

VI. BUILDING/SITE CHARACTERISTICS

1. Number of Stories	_____	(office use only)
2. Height of Structure	_____ ft.	
3. Area — Largest Floor	_____ sq. ft.	
4. New Building Area	_____ sq. ft.	
5. Volume of New Structure	_____ cu. ft.	
6. Max. Live Load	_____	
7. Max. Occupancy Load	_____	
8. If Industrialized Building: State Approved _____ HUD _____		
9. Total Land Area Disturbed	_____ sq. ft.	
10. Flood Hazard Zone	_____	
11. Base Flood Elevation	_____ ft.	
12. Wetlands	yes _____ no _____	

IIa. PROPOSED WORK

☒ Minor Work ☐ New Building ☐ Addition ☐ Demolition
☐ Repair ☐ Alteration ☐ Renovation ☐ Reconstruction
☐ Asbestos Abat. -Subch. 8 ☐ Lead Hazard Abatement ☐ Radon Remediation ☐ Annual Permit

IIb. SUBCODES
(Check all that apply)

☐ Building	_____
☐ Electrical	_____
☐ Plumbing	_____
☐ Fire Protection	_____
☐ Elevator	_____

FOR OFFICE USE ONLY (Optional)

Est. Cost	Plans Rec'd by	Date Rec'd	Rejection Date	Approval Date	Re-viewer	Resubmission Dates Approval	Rejection	Re-viewer
	<u>CW</u>	<u>4/16/19</u>						

TOTAL COST _____

VII. DESCRIPTION OF BUILDING USE

A. RESIDENTIAL (primary use)

1. State Specific Use: _____

2. Use Group, Proposed: _____

3. Change in Use Group, Indicate Present: _____

4. No. of dwelling units: Total Units Income-restricted

Gained, Sale	_____
Gained, Rental	_____
Lost, Sale	_____
Lost, Rental	_____

B. NON-RESIDENTIAL (primary use)

1. State Specific Use: _____

2. Use Group, Proposed: _____

3. Change in Use Group, Indicate Present: _____

C. MIXED USE -List secondary use(s): _____

D. Construct. Classification: Present _____ Proposed _____

III. PLAN REVIEW (optional)

DO YOU WANT:

1. ☐ Partial Releases

2. ☐ Prototype Processing

IV. DOES OR WILL YOUR BUILDING CONTAIN ANY OF THE FOLLOWING?

1. ☐ Elevators/Escalators/Lifts/ Dumbwaiters/Moving Walks	4. ☐ Refrigeration Systems	8. ☐ Smoke Control Systems in Open Wells	12. ☐ Fire Alarm
2. ☐ High Pressure Boilers	5. ☐ Cross-Connections/Backflow Preventers	9. ☐ Underground Storage Tanks	
3. ☐ Pressure Vessels	6. ☐ Hazardous Uses/Places of Assembly	10. ☐ Swimming Pools, Spas and Hot Tubs	
	7. ☐ Sprinklers/Standpipes	11. ☐ LPGas Tanks	

CERTIFICATION IN LIEU OF OATH

I. OWNER SECTION (to be completed if the applicant is the owner in fee)

I hereby certify that I am the owner in fee of the property listed on Page 1.

Mark the following applicable boxes:

- A. ☐ I further certify that a new home (private residence) will be constructed on this property for my own use and occupancy. This dwelling is to be occupied by myself and is not to be used for any purpose other than single family residential use. I attest that all construction, plumbing, or electrical work will be done, in whole or in part, by me or by subcontractors under my supervision, in accordance with all applicable laws; and, I further acknowledge that said new home is not covered under the New Home Warranty and Builders Registration Act (N.J.S.A. 46:3B-1 et seq.) and that such fact shall be disclosed to any person purchasing this property within ten years of the date of issuance of a certificate of occupancy.

I UNDERSTAND THAT IN MARKING BOX A, I ACKNOWLEDGE THAT I AM ASSUMING RESPONSIBILITY FOR THE WORK DONE ON SAID PROPERTY, THE CONDITION OF THE PROPERTY PRIOR TO, DURING, AND AFTER ANY WORK PERFORMED, AND FOR THE PERFORMANCE OF THE SUBCONTRACTORS I HIRE, EMPLOY, OR OTHERWISE CONTRACT OR WITH WHOM I MAKE AGREEMENTS TO PERFORM WORK. I AM VOLUNTARILY AND KNOWINGLY ASSUMING THIS RESPONSIBILITY.

- B. ☐ I further certify the following as required by the New Jersey Uniform Construction Code, N.J.A.C. 5:23-2.15(f)1.ix:

I personally prepared the plans submitted for: 1) the new home referred to in A.; or, 2) an addition, alteration, renovation, or repair to an existing single family residence owned and occupied by myself and located on the property listed on Page 1; or, 3) a new structure that will be physically separate from, but that will be deemed part of, an existing single family residence that is owned and occupied by myself and located on the property listed on Page 1.

- C. ☐ I further certify that I will perform or supervise the following work:

C.1. ☐ Building C.2. ☐ Fire Protection

I further certify that I will perform the following work:

C.3. ☐ Electrical C.4. ☐ Plumbing

- D. ☐ I agree to advise all contractors on this project that they are required to be registered with the New Jersey Division of Taxation and to comply with all New Jersey tax laws.

I further certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(a)5: All required State, county, and local prior approvals have been given, including such certification as the construction official may require.

I understand that if any of the above statements are willfully false, I am subject to punishment.

Signature _____ Date _____

II. AGENT SECTION (to be completed if the applicant is not the owner in fee)

I hereby certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(d): the proposed work is authorized by the owner in fee; and I have been authorized by the owner in fee to make this application as his agent.

I further certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(a)5: All required State, county, and local prior approvals have been given, including such certification as the construction official may require.

I agree to advise all contractors on this project that they are required to be registered with the New Jersey Division of Taxation and to comply with all New Jersey tax laws.

I understand that if any of the above statements are willfully false, I am subject to punishment.

☒ Check if contractor.

Agent Name

Olin Forsberg

Address

12 Tyler St Port Pleasant NJ 08742

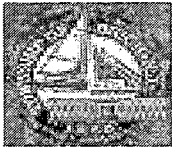
Telephone

(732) 773 8880

Signature

[Signature]

III. ☐ LEAD HAZARD ABATEMENT: Include Homeowner or Building Owner Affidavit as per N.J.A.C. 5:17.



Brick Township
401 Chambersbridge Rd
Brick, NJ 08723

Date Issued 5/14/2019
Control Number C-19-001354
Permit Number 19-0952
Permit Issue Date 4/18/2019
Certificate Number 19-0952

Certificate

Construction Code Division
(Certificate of Approval)

Identification

Work Site Location: 234 20TH AVE. Brick Township, NJ Block: 1342.19 Lot: 54 Qual: _____
Owner in Fee: RICHARD RABENDER
Owner Address: 232 20TH AVE BRICK NJ 08724
Telephone: [REDACTED]
Contractor OLIN J FORSBERG
Address 1212 TYLER STREET PT. PLEASANT NJ 08742
Telephone: (732) 773-8880 Fax: _____
License Number or Builders Registration Number: _____ Federal Emp. Number: _____

Home Warranty Number: _____

Type of Warranty Plan: ☐ State ☐ Private

Use Group: R-5 Construction Classification: _____

Maximum Live Load: 0 Maximum Occupancy Load: 0

Description of Work/Use: REPLACEMENT A/C, REPLACEMENT HOT AIR FURNACE

Certificate Comments:

☐ **Certificate of Occupancy**

This serves notice that said building or structure has been constructed in accordance with the New Jersey Uniform Construction Code and is approved for occupancy.

☒ **Certificate of Approval**

This serves notice that the work completed has been constructed or installed in accordance with the New Jersey Uniform Construction Code and is approved. If the permit was issued for minor work, this certificate was based upon what was visible at the time of inspection.

☐ **Certificate of Continued Occupancy**

This serves notice that based on a general inspection of the visible parts of the building there are no imminent hazards and the building is approved for continued occupancy.

☐ **Temporary Certificate of Compliance**

The following conditions must be met no later than or the owner will be subject to fine or order to vacate:

This certificate has an expiration date of:

Conditions to be met:

☐ **Certificate of Clearance - Lead Abatement 5:17**

This serves notice that based on written certification, lead abatement was performed as per NJAC5:17 to the following extent.

☐ Total removal of lead-based paint hazards in scope of work

☐ Partial or limited time period (years); see file

☐ **Certificate of Clearance - Asbestos Abatement**

This serves notice that based on written certification, asbestos abatement was performed to the following extent.

☐ Total removal of asbestos hazards in scope of work

☐ Partial or limited time period (years); see file

☐ **Certificate of Compliance**

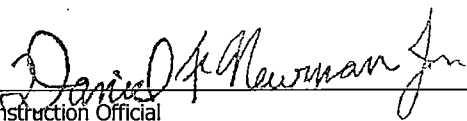
This serves notice that said potentially hazardous equipment has been installed and/or maintained in accordance with the New Jersey Uniform Construction Code and is approved for use until

☐ **Temporary Certificate of Occupancy**

The following conditions must be met no later than: or the owner will be subject to fine or order to vacate:

This certificate has an expiration date of:

Conditions to be met:


Construction Official

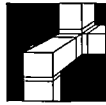
Fee: \$0.00

Check Number: _____

Collected By: _____



MECHANICAL INSPECTOR TECHNICAL SECTION



Date Received
Control #
Date Issued
Permit #

4-18-19
19-0952

A. IDENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 1342.19 Lot 54 Qualification Code _____
Work Site Location 231 20th Ave Brick NJ

Owner in Fee: Richard R. Brudel

Tel. _____ e-mail _____

Address 231 20th Ave Brick NJ 08724
street municipality zip code

Contractor: Olin Forsberg Tel. 732 778880

Address 1212 Tyler St Point Pleasant NJ e-mail OlinForsberg@bnci.com
08742

Contractor License No. or Builder Registration No. 19HC00599300 Exp. Date 8/30/2020

Home Improvement Contractor Registration No. or Exemption Reason 13UH04733800

Federal Emp. ID No. _____ FAX: _____

B. MECHANICAL CHARACTERISTICS

Use Group Present: R-3 or R-5

Heating System work: ☐ New OR ☐ Modification to Existing OR ☐ Conversion OR ☒ Replacement

Type: ☐ Hydronic ☒ Hot Air

Fuel Type: ☒ Gas ☐ Oil ☐ Electric ☐ Solar ☐ Other _____

Estimated Cost of Mechanical Work \$ 3,800

JOB SUMMARY (Office Use Only)					
PLAN REVIEW					
☐ No Plans Required					
☐ Mechanical Plans Approved					
Date:	Approved by:				
Joint Plan Review Required:					
☐ Bldg.	☐ Elec.	☐ Plumb.	☐ Fire.		
☐ Elev.					
SUBCODE APPROVAL for PERMIT					
Date:					
Approved by:					
SUBCODE APPROVAL for CERTIFICATE					
☐ CA	☐ CCO				
Date:	5-13-19				
Approved by:					
INSPECTIONS					
Type:	Failure	Failure	Approval	Initial	
Gas Piping					
Appliance					
Chimney/Vent					
Oil Piping					
Oil Tank					
LPG Tank					
Hydronic Piping					
Fireplace					
Chimney Cert.					
Other	FINAL	4-30-19	5-10-19	WJ	

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner of record and am authorized to make this application.

Sign here: _____

Print name here: Olin Forsberg

D. TECHNICAL SITE DATA

DESCRIPTION OF WORK

Furnace Replacement - replacing gas furnace with a similar modern gas unit.

AC

NO.	FIXTURE/EQUIPMENT
_____	Water Heater
_____	Fuel Oil Piping Connections
_____	Gas Piping Connections
_____	Steam Boiler
_____	Hot Water Boiler
1	Hot Air Furnace
_____	Oil Tank
_____	LPG Tank
_____	Fireplace
_____	Other

1 AC

FEE (Office Use Only)

\$	_____
\$	_____
\$	_____
\$	_____
\$	_____
\$	_____
\$	_____
\$	_____
\$	_____
\$	_____

Administrative Surcharge \$	_____
Minimum Fee \$	_____
State Permit Surcharge Fee \$	_____
TOTAL FEE \$	_____



ELECTRICAL SUBCODE TECHNICAL SECTION



A. IDENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 1342019 Lot 54 Qualification Code _____
Work Site Location 234 20th Ave Bkck NJ 0724

Owner in Fee: Ryan Vanderkoo
Tel. _____ e-mail _____

Address 234 20th Ave Bkck 0724
street municipality zip code

Contractor: Tarbo Electric Inc Tel. 732 701 0422

Address 811 Woodville pr e-mail turbo14770@gmail.com
Point Pleasant

Contractor License No. 14770 Exp. Date 3-21

Home Improvement Contractor Registration No. or Exemption Reason _____

Federal Emp. ID No. 223657748 FAX: _____

B. ELECTRICAL CHARACTERISTICS

Use Group Present _____ Proposed _____

[] Pole/Pad # _____ [] Temporary [] Other _____

Building Occupied as _____ Utility Co. _____

Est. Cost of Elec. Work \$ 100

JOB SUMMARY (Office Use Only)

PLAN REVIEW

[] No Plans Required
[] Partial Underslab Utilities Approved
Date: _____ Approved by: _____

[] Electric Plans Approved
Date: _____ Approved by: _____

Joint Plan Review Required
[] Bldg. [] Plumb. [] Fire. [] Elev.

SUBCODE APPROVAL for PERMIT

Date: _____ Approved by: _____

SUBCODE APPROVAL for CERTIFICATE

[] I CO [] I CCO [] I CA
Date: _____ Approved by: _____

INSPECTIONS

Type	Failure	Failure	Approval	Initial
Rough				
Barrier-Free				
Trench				
Temp. Serv.				
Constr. Serv.				
TCO				
Other				
Service				
Final				
Barrier-Free				
Temp. Cut-in-Card Date Issued				
Final Cut-in-Card Date Issued				
Annual Pool Inspection				
Date of Grounding and Bonding Certification				

CHANGE OF CONTRACTOR

Date Received
Control #

Date Issued
Permit #

5/7/19
19-0952

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner of record and am authorized to make this application and perform the work listed on this application.

Applicant sign/Contractor sign and seal here: _____

Print name here: Eden Brown

☒ Licensed Elec. Contractor [] Certified Landscape Irrigation Contr [] Exempt Applicant

D. TECHNICAL SITE DATA

DESCRIPTION OF WORK:

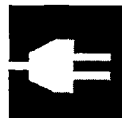
Replacement of air conditioning disconnect

QTY.	SIZE	ITEMS	FEES (Office Use Only)
_____	_____	Lighting Fixtures	_____
_____	_____	Receptacles	_____
_____	_____	Switches	_____
_____	_____	Detectors	_____
_____	_____	Light Poles	_____
_____	_____	Motors—Fract. HP	_____
_____	_____	Emergency & Exit Lights	_____
_____	_____	Communications Points	_____
_____	_____	Alarm Devices/F.A.C. Panel	_____
_____	_____	TOTAL NUMBERS	\$ _____
_____	_____	Pool Permit/with UW Lights	_____
_____	_____	Storable Pool/Spa/Hot Tub	_____
_____	_____	KW Elec. Range/Receptacle	_____
_____	_____	KW Oven/Surface Unit	_____
_____	_____	KW Elec. Water Heater	_____
_____	_____	KW Elec. Dryer/Receptacle	_____
_____	_____	KW Dishwasher	_____
_____	_____	HP Garbage Disposal	_____
_____	_____	KW Central A/C Unit	_____
_____	_____	HP/KW Space Heater/Air Handler	_____
_____	_____	KW Baseboard Heat	_____
_____	_____	HP Motors 1/+ HP	_____
_____	_____	KW Transformer/Generator	_____
_____	_____	AMP Service	_____
_____	_____	AMP Subpanels	_____
_____	_____	AMP Motor Control Center	_____
_____	_____	KW Elec. Sign/Outline Light	_____

Administrative Surcharge \$ _____
Minimum Fee \$ _____
State Permit Surcharge Fee \$ _____
TOTAL FEE \$ _____



ELECTRICAL SUBCODE TECHNICAL SECTION



Date Received
Control #
Date Issued
Permit #

4/18/19
19-0952

A. IDENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 1342.15 Lot 54 Qualification Code _____
Work Site Location 237 20th Ave Brick NJ 08724

Owner in Fee Richard Ribandel
Tel. _____ e-mail _____

Address _____ street _____ municipality _____ zip code _____

Contractor: Olin Forsberg Tel. 732 773 8880
Address 1212 Tyler St Point Pleasant NJ e-mail Olin.forsberg@gmail.com

Contractor License No. 18HC00599300 Exp. Date _____

Home Improvement Contractor Registration No. or Exemption Reason 13U1077338C0

Federal Emp. ID No. _____ FAX: _____

B. ELECTRICAL CHARACTERISTICS

Use Group Present ☒ Proposed _____

[] Pole/Pad # _____ [] Temporary [] Other _____

Building Occupied as _____ Utility Co. _____

Est. Cost of Elec. Work \$ 100

JOB SUMMARY (Office Use Only)	
PLAN REVIEW	INSPECTIONS
[] No Plans Required	Type: _____
[] Partial - Under-slab Utilities Approved	Rough _____
Date: _____ Approved by: _____	Barrier-Free _____
[] Electric Plans Approved	Trench _____
Date: _____ Approved by: _____	Temp. Serv. _____
Joint Plan Review Required:	Constr. Serv. _____
[] Bldg. [] Plumb. [] Fire. [] Elev.	TCO _____
SUBCODE APPROVAL for PERMIT	Other _____
Date: _____	Service _____
Approved by: _____	Final _____
SUBCODE APPROVAL for CERTIFICATE	Barrier-Free _____
[] CO [] CCO [] CA	Temp. Cut-in-Card Date Issued _____
Date: <u>5/23/19</u>	Final Cut-in-Card Date Issued _____
Approved by: _____	Annual Pool Inspection _____
	Date of Grounding and Bonding Certification _____

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner of record and am authorized to make this application and perform the work listed on this application.

Applicant sign/Contractor sign and seal here:

Print name here:

Olin Forsberg

[] Licensed Elec. Contractor [] Certif'd Landscape Irrigation Contr [] Exempt Applicant

D. TECHNICAL SITE DATA

DESCRIPTION OF WORK:

Final Receptacle / 1+ AC Receptacle

QTY.	SIZE	ITEMS	FEE (Office Use Only)
_____	_____	Lighting Fixtures	_____
_____	_____	Receptacles	_____
_____	_____	Switches	_____
_____	_____	Detectors	_____
_____	_____	Light Poles	_____
_____	_____	Motors—Fract. HP	_____
_____	_____	Emergency & Exit Lights	_____
_____	_____	Communications Points	_____
_____	_____	Alarm Devices/F.A.C. Panel	_____
_____	_____	TOTAL NUMBERS	\$ _____
_____	_____	Pool Permit/with UW Lights	_____
_____	_____	Storable Pool/Spa/Hot Tub	_____
_____	_____	KW Elec. Range/Receptacle	_____
_____	_____	KW Oven/Surface Unit	_____
_____	_____	KW Elec. Water Heater	_____
_____	_____	KW Elec. Dryer/Receptacle	_____
_____	_____	KW Dishwasher	_____
_____	_____	HP Garbage Disposal	_____
_____	_____	KW Central A/C Unit	_____
_____	_____	HP/KW Space Heater/Air Handler	_____
_____	_____	KW Baseboard Heat	_____
_____	_____	HP Motors 1/+ HP	_____
_____	_____	KW Transformer/Generator	_____
_____	_____	AMP Service	_____
_____	_____	AMP Subpanels	_____
_____	_____	AMP Motor Control Center	_____
_____	_____	KW Elec. Sign/Outline Light	_____

Administrative Surcharge \$ _____
Minimum Fee \$ _____
State Permit Surcharge Fee \$ _____
TOTAL FEE \$ _____

4/30/19

1)

Gas

Pipes strong on flex

2)

I D

White neutral with green

3)

New

DISCONNECT WAS TRAILING

NEED

100% ALSO ELECTRICAL CONTINUES

4)

STOP

PLUG TO PUMPER

Brick Township

401 Chambers Bridge Road
Brick, NJ 08723
732-262-1030

CORRECTION NOTICE

ADDRESS _____

PERMIT NUMBER 19-0952 BLOCK 1342.19 LOT 54

OWNER VANDERKOP

Upon inspection, violations of the _____ Building _____ Plumbing ☒ Electric _____ Fire Code
were in evidence and the following orders are hereby issued for their correction:

- 1) I D ground wire with green
- 2) GAS PIPE STRAP ON FLEX change to P.V.C.
- STRAP FEED TO RUNAWAY
- NEED LICENSED ELECTRICAL CONTRACTOR
- NEW DISCONNECT INSTALLED

PLEASE CALL FOR INSPECTION WHEN CORRECTIONS HAVE BEEN COMPLETED. ACCEPTANCE AND APPROVAL BY AN INSPECTOR OF THIS DEPARTMENT IS REQUIRED.

DATE 4/30/19 INSPECTOR Tom Olson



CONSTRUCTION PERMIT

Date Issued 4-18-19
Control # C-19-001354
Permit # 19-0952

IDENTIFICATION Block: 1342.19 Lot: 54 Qualifier _____
Work Site Location: 234 20TH AVE. Brick Township, NJ Contractor OLIN J FORSBERG
Address 1212 TYLER STREET PT. PLEASANT NJ 08742
Owner in Fee RICHARD RABENDER
232 20TH AVE BRICK NJ 08724 Telephone: (732) 773-8880
Lic. No. or Bldrs. Reg. No. 19HC00599300
Telephone: _____ Federal Employee No. _____

Is hereby granted permission to perform the following work:

- ☐ BUILDING ☐ PLUMBING ☐ LEAD HAZARD ABATEMENT
☒ ELECTRICAL ☐ FIRE PROTECTION ☐ DEMOLITION
☐ ELEVATOR DEVICES ☐ ASBESTOS ABATEMENT (Subchapter 8 only) ☒ OTHER

DESCRIPTION OF WORK:

REPLACEMENT A/C, REPLACEMENT HOT AIR FURNACE

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 \$3,900

Daniel F. Murnan
Construction Official

4/16/19
Date

U.C.C. F170
equiv (rev 1/04)

1 WHITE - INSPECTOR

2 CANARY - OFFICE

3 PINK - TAX ASSESSOR

4 GOLD - APPLICANT

PAYMENTS (Office Use Only)

Building	\$0
Electrical	\$150
Plumbing	\$0
Fire Protection	\$0
Elevator Devices	\$0
Other	\$200.00
DCA Training Fee	\$7
CO Fee	
Other	\$0
Total	\$357
Check No.	<u>487</u>
Cash	\$0
Credit	\$0
Collected By	<u>KB</u>

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 the 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 granted.

☒ 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 cases 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. 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.
4. Installation of all finished materials, sealings of exterior joints, plumbing piping, trim and fixtures; electrical wiring, devices and fixtures; mechanical systems equipment.

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.

If you do not understand any of this information, please ask.

State Of New Jersey
New Jersey Office of the Attorney General
Division of Consumer Affairs

THIS IS TO CERTIFY THAT THE
Board of Exam. of HVACR Contractors

HAS LICENSED

Olin J. Forsberg
1212 Tyler Street
Point Pleasant Boro NJ 08742

FOR PRACTICE IN NEW JERSEY AS A(N): Master HVACR Contractor

07/30/2018 TO 06/30/2020
VALID

19HC00599300
LICENSE/REGISTRATION/CERTIFICATION #

Signature of Licensee/Registrant/Certificate Holder

ACTING DIRECTOR

New Jersey Office of the Attorney General
Division of Consumer Affairs
THIS IS TO CERTIFY THAT THE
Board of Exam. of HVACR Contractors
HAS LICENSED
Olin J. Forsberg
Master HVACR Contractor

07/30/2018 TO 06/30/2020
VALID

19HC00599300
License/Registration/Certificate #

SIGNATURE

ACTING DIRECTOR

PLEASE DETACH HERE
IF YOUR LICENSE/REGISTRATION/
CERTIFICATE ID CARD IS LOST
PLEASE NOTIFY:
Board of Exam. of HVACR Contractors
P.O. Box 47031
Newark, NJ 07101

PLEASE DETACH HERE

State Of New Jersey
New Jersey Office of the Attorney General
Division of Consumer Affairs

THIS IS TO CERTIFY THAT THE
Home Improvement Contractors

HAS REGISTERED

OLIN FORSBERG
Olin Forsberg
811 Partridge Run
Point Pleasant NJ 08742

FOR PRACTICE IN NEW JERSEY AS A(N): Home Improvement Contractor

03/28/2019 TO 03/31/2020
VALID

13VH04733800
LICENSE/REGISTRATION/CERTIFICATION #

New Jersey Office of the Attorney General
Division of Consumer Affairs
THIS IS TO CERTIFY THAT THE
Home Improvement Contractors
HAS REGISTERED
OLIN FORSBERG
Home Improvement Contractor

NOT AN ELECTRICIAN'S OR PLUMBER'S LICENSE
03/28/2019 TO 03/31/2020
VALID

13VH04733800
License/Registration/Certificate #

SIGNATURE

ACTING DIRECTOR

PLEASE DETACH HERE
IF YOUR LICENSE/REGISTRATION/
CERTIFICATE ID CARD IS LOST
PLEASE NOTIFY:
Home Improvement Contractors
P.O. Box 45016
Newark, NJ 07101



CHIMNEY VERIFICATION FOR REPLACEMENT OF FUEL-FIRED EQUIPMENT

BLOCK 1342.19 LOT 54 QUALIFICATION CODE _____ PERMIT # _____
WORK SITE ADDRESS 234 20th Ave Brock NJ
Owner in Fee Richard Rabanel
Verifying Individual Olin Farabee Company Olin Farabee Heating
Address 1212 Tyler St Pont Aven NJ 08272
Tel: (732) 773 8880 Fax: ()

Check the Appropriate Box(es): Type of Replacement:

- ☐ Oil to Gas Conversion
☐ Gas to Oil Conversion
☒ Gas Appliance Replacement
☐ Oil to Oil Replacement
☐ Other _____

Existing Vent/Chimney:

- ☐ "B" Label Vent
☐ "L" Label Vent
☐ Flexible Liner
☒ Power Vent/Exhauster

- Size 2" PUC sch 40
☐ Chimney-Interior
☐ Chimney-Exterior
☐ Masonry Chimney-Tile Lined
☐ Masonry Chimney-Unlined
☐ Other _____

Appliance 1: Furnace Fuel Type Gas BTU Rating (input/hour) 60,000
Appliance 2: _____ Oil / Gas / Other: _____
Appliance 3: _____ Oil / Gas / Other: _____

CHIMNEY LINER

If a chimney liner is being installed, all documentation on the liner must accompany the Permit application.

Manufacturer: _____ Model: _____ UL Listing: _____
Material of Liner: Stainless Steel _____ Aluminum _____
Size of Appliance Vent: _____ Size of Liner: _____ Height of Chimney: _____
Length of Connector: _____ Vent Connector Rise: _____
How does the appliance vent? ☐ Natural Draft ☐ Fan-assisted ☐ Other: _____

PLEASE SIGN ONE OF THE FOLLOWING VERIFICATION STATEMENTS

For Oil or Coal to Gas Conversions:

I have verified that the chimney/vent is in good repair and clear of obstruction and is substantially clean of residue from its previous use serving an oil or coal appliance. I have verified that the chimney/vent is appropriately lined and sized for the appliance(s) being installed.

Signature _____

Date _____

Oil to Oil or Gas to Gas Replacements or New/Additional Appliances:

I have verified that the existing chimney/vent is in good repair and clear of obstruction. I have verified that the existing chimney/vent is appropriately lined and sized for the appliance(s) being installed and/or remaining.

Signature _____

Date _____

Direct Vent Appliance:

I hereby verify that the appliance(s) being installed is a direct vent appliance. I further verify that the existing chimney/vent is appropriately lined and sized for any remaining appliances.

Signature _____

Date 4/15/19

Verification Not Submitted:

I choose not to submit verification. I understand that I will be required to be present for the inspection to remove and reinstall the chimney vent connector.

Signature _____

Date _____

FOR MINOR AND EMERGENCY WORK, THIS FORM MUST BE PROVIDED WITH YOUR PERMIT APPLICATION. FOR ALL OTHER WORK, THIS FORM MUST BE PRESENTED TO THE CODE OFFICIAL PRIOR TO FINAL INSPECTION.

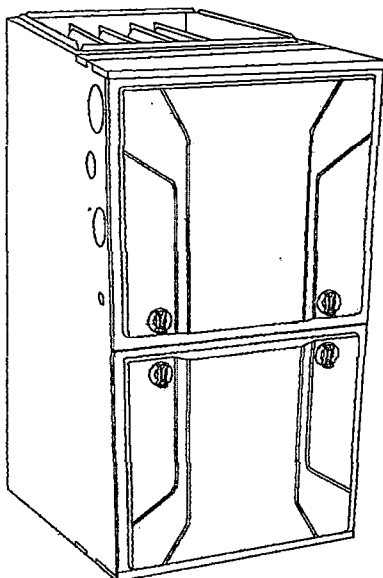
All applicable information requested on this form must be supplied.

This form may not be submitted by a homeowner in lieu of the required inspection.

**925SA
PREFERRED™ SERIES SINGLE-STAGE
4-WAY MULTIPOISE
CONDENSING GAS FURNACE, SERIES B**



Product Data



A11264

The 925SA Multipoise SEER Boost Condensing Gas Furnace features the single-stage Preferred™ System. The Boost ECM multiple-speed blower motor is at the heart of the electrical efficiency provided by this furnace. With an Annual Fuel Utilization Efficiency (AFUE) of 96.2%, the Preferred single-stage gas furnace provides added savings over standard gas furnaces. This Preferred Gas Furnace features 4-way multipoise installation flexibility, and is available in six model sizes. The 925SA can be vented for direct vent/two-pipe, ventilated combustion air, or single-pipe applications. A Bryant Preferred Control and Preferred Air Conditioner or Heat Pump, can be used to form a complete Preferred Series System. All units meet California Air Quality Management District emission requirements. All sizes are design certified in Canada. All sizes are design certified for use in Manufactured Housing (Mobile Home) applications when used with factory-approved MH accessory kit.

STANDARD FEATURES

- Quiet operation. Compare for yourself at HVACpartners.com.
- Most sizes meet ENERGY STAR® Version 4.0 criteria for gas furnaces: 95+ AFUE; AMACF electrical rating; 2% or less cabinet airflow leakage. *See table on Page 2.*

- Ideal height 35" (889 mm) cabinet: short enough for taller coils, but still allows enough room for service.
- Preferred Features—match with the Preferred Control for Preferred System benefits.
- Silicon Nitride Perfect Light™ Hot Surface Igniter.
- SmartEvap™ technology helps control humidity levels in the home when used with a compatible humidity control system.
- Fan On Plus™ technology allows control of continuous fan speed from a compatible thermostat.
- External Media Filter Cabinet included.
- 4-way multipoise design for upflow, downflow or horizontal installation, with unique vent elbow and optional through-the-cabinet downflow venting capability.
- Boost ECM multiple-speed blower motor, single-speed inducer motor, and single-stage gas valve.
- Self-diagnostics.
- Adjustable blower speed for cooling, continuous fan, and dehumidification.
- Approved for Twinning applications with accessory kit (42060 through 66120 models, only).
- Approved for Manufactured Housing/Mobile Home applications with MH accessory kit.
- Aluminized-steel primary heat exchanger.
- Stainless-steel condensing secondary heat exchanger.
- Propane convertible (See Accessory list).
- Factory-configured ready for upflow applications.
- Fully-insulated casing including blower section.
- Convenient Air Purifier and Humidifier connections.
- Direct-vent/sealed combustion, single-pipe venting or ventilated combustion air.
- Installation flexibility: sidewall or vertical vent.
- Residential installations may be eligible for consumer financing through the Retail Credit Program.
- Certified to leak 2% or less of nominal air conditioning CFM delivered when pressurized to 1-in. water column with all present air inlets, air outlets, and condensate drain port(s) sealed.

**Preferred™
SERIES**



Select Models



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



Always Ask For
**FACTORY
AUTHORIZED
PARTS**

ACCESSORIES

DESCRIPTION	PART NUMBER	30040	36060	36040	42060	48080	60080	60100	66120
Venting Accessories									
Vent Kit - Through the Cabinet	KGADC0101BVC	•	•	•	•	•	•	•	•
Vent Terminal - Concentric - 2" (51 mm)	KGAVT0701CVT	See Venting Tables							
Vent Terminal - Concentric - 3" (76 mm)	KGAVT0801CVT								
Vent Terminal Bracket - 2" (51 mm)	KGAVT0101BRA								
Vent Terminal Bracket - 3" (76 mm)	KGAVT0201BRA								
Vent Kit – Rubber Coupling	KGAAC0101RVC	See Venting Tables							
Condensate Drainage Accessories									
Freeze Protect Kit - Heat Tape	KGAHT0101CFP	•	•	•	•	•	•	•	•
CPVC to PVC Drain Adapters - 1/2" CPVC to 3/4" PVC	KGAAD0110PVC	•	•	•	•	•	•	•	•
Horizontal Trap Grommet - Direct Vent	KGACK0101HCK	All DV Horizontal							
Condensate Neutralizer Kit	P908-0001	•	•	•	•	•	•	•	•
External Trap Kit	KGAET0201ETK	•	•	•	•	•	•	•	•
Ductwork Adapter Accessories									
Furnace Base Kit for Combustible Floors	KGASB0201ALL	•	•	•	•	•	•	•	•
Coil Adapter Kits – No Offset	KGADA0101ALL	•	•	•	•	•	•	•	•
Coil Adapter Kits – Single Offset	KGADA0201ALL	•	•	•	•	•	•	•	•
Coil Adapter Kits – Double Offset	KGADA0301ALL	•	•	•	•	•	•	•	•
Return Air Base (Upflow Applications) 14.0–in. wide	KGARP0301B14	•	•						
Return Air Base (Upflow Applications) 17.5–in. wide	KGARP0301B17			•	•	•			
Return Air Base (Upflow Applications) 21.0–in. wide	KGARP0301B21						•	•	
Return Air Base (Upflow Applications) 24.5–in. wide	KGARP0301B24								•
IAQ Device Duct Adapters 20.0–in. IAQ to 16 in. Side Return	KGAAD0101MEC	20"x25" IAQ Devices							
IAQ Device Duct Adapters 24.0–in. IAQ to 16 in. Side Return	KGAAD0201MEC	24"x25" IAQ Devices							
Gas Conversion Accessories									
Mobile Home Kit	KGBMH0601KIT	•	•	•	•	•	•	•	•
Gas Conversion Kit - Nat to LP	KGBNP50011SP	•	•	•	•	•	•	•	•
Gas Conversion Kit - LP to Nat	KGBPN42011SP	•	•	•	•	•	•	•	•
Gas Orifice Kit - #42 (Nat Gas)	LH32DB207	•	•	•	•	•	•	•	•
Gas Orifice Kit - #43 (Nat Gas)	LH32DB202	•	•	•	•	•	•	•	•
Gas Orifice Kit - #44 (Nat Gas)	LH32DB200	•	•	•	•	•	•	•	•
Gas Orifice Kit - #45 (Nat Gas)	LH32DB205	•	•	•	•	•	•	•	•
Gas Orifice Kit - #46 (Nat Gas)	LH32DB208	•	•	•	•	•	•	•	•
Gas Orifice Kit - #47 (Nat Gas)	LH32DB078	•	•	•	•	•	•	•	•
Gas Orifice Kit - #48 (Nat Gas)	LH32DB076	•	•	•	•	•	•	•	•
Gas Orifice Kit - #54 (LP)	LH32DB203	•	•	•	•	•	•	•	•
Gas Orifice Kit - #55 (LP)	LH32DB201	•	•	•	•	•	•	•	•
Gas Orifice Kit - #56 (LP)	LH32DB206	•	•	•	•	•	•	•	•
Gas Orifice Kit - 1.25mm (LP)	LH32DB209	•	•	•	•	•	•	•	•
Gas Orifice Kit - 1.30mm (LP)	LH32DB210	•	•	•	•	•	•	•	•
Control Accessories									
Twinning Kit	KGATW0701HSI				•	•	•	•	•
IAQ Accessories									
Filter Pack (6 pack) – Washable - 16x25x1 (406x635x25 mm)	KGAWF1306UFR	•	•	•	•	•	•	•	•
Filter Pack (6 pack) – Washable - 24x25x1 (610x635x25 mm)	KGAWF1506UFR	•	•	•	•	•	•	•	•
EZ-Flex Filter - 16" (406 mm)	EXPXXFIL0016	Use with EZXCAB–1016							
EZ-Flex Filter - 20" (508 mm)	EXPXXFIL0020	Use with EZXCAB–1020							
EZ-Flex Filter - 24" (610 mm)	EXPXXFIL0024	Use with EZXCAB–1024							
EZ-Flex Filter with End Caps - 16" (406 mm)	EXPXXUNV0016	Use with EZXCAB–1016							
EZ-Flex Filter with End Caps - 20" (508 mm)	EXPXXUNV0020	Use with EZXCAB–1020							
EZ-Flex Filter with End Caps - 24" (610 mm)	EXPXXUNV0024	Use with EZXCAB–1024							
Cartridge Media Filter - 16" (406 mm)	FILXXCAR0016	Use with FILCABXL–1016							
Cartridge Media Filter - 20" (508 mm)	FILXXCAR0020	Use with FILCABXL–1020							
Cartridge Media Filter - 24" (610 mm)	FILXXCAR0024	Use with FILCABXL–1024							
Bryant Preferred Air Purifier - 16x25 (508x635 mm)	PGAPXX1625	Up to 1600 CFM							
Bryant Preferred Air Purifier - 20x25 (508x635 mm)	PGAPXX2025	Up to 2000 CFM							
Bryant Preferred Air Purifier Repl Filter - 16x25 (406x635 mm)	PGAPXXCAR1625	Use with PGAPXX1625							
Bryant Preferred Air Purifier Repl. Filter - 20x25 (508x635 mm)	PGAPXXCAR2025	Use with PGAPXX2025							

• = Used with the model furnace

AIR DELIVERY - CFM (BOTTOM RETURN WITH FILTER)

UNIT SIZE	RETURN-AIR CONNECTION	SPEED TAPS ^{2, 3}	EXTERNAL STATIC PRESSURE (IN.W.C.)									
			0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
030040	SIDE/BOTTOM	Gray	1120	1080	1030	980	925	875	820	760	690	630
		Yellow	880	845	810	780	740	710	680	640	615	570
		Blue	695	665	620	575	535	495	455	420	370	280
		Orange	640	595	540	495	460	420	370	310	260	230
		Red	570	525	475	425	385	330	255	220	- ⁶	- ⁶
036040	SIDE/BOTTOM	Gray	1255	1220	1175	1130	1085	1040	990	940	880	825
		Yellow	940	905	870	840	805	770	735	695	665	630
		Blue	705	670	630	575	540	500	455	410	380	325
		Orange	580	535	480	425	380	335	290	235	- ⁶	- ⁶
		Red	555	485	425	375	330	280	215	- ⁶	- ⁶	- ⁶
036060	SIDE/BOTTOM	Gray	1265	1225	1185	1140	1090	1030	975	920	850	760
		Yellow	1115	1085	1060	1030	1000	970	930	880	810	715
		Orange	1000	970	940	910	880	845	815	770	735	695
		Blue	945	915	885	855	820	785	745	705	675	635
		Red	770	740	700	660	620	575	540	500	455	415
042060	SIDE/BOTTOM	Gray	1720	1670	1620	1565	1505	1440	1375	1295	1220	1135
		Yellow	1325	1285	1255	1220	1185	1145	1115	1075	1040	1000
		Blue	1010	970	925	875	835	785	745	690	660	620
		Orange	1160	1115	1080	1045	1000	960	920	875	840	785
		Red	785	715	655	595	530	490	435	385	340	285
048080	SIDE/BOTTOM	Gray	1810	1770	1720	1665	1610	1540	1475	1400	1315	1235
		Yellow	1535	1500	1475	1435	1405	1370	1340	1310	1245	1160
		Blue	1380	1340	1305	1270	1240	1200	1165	1130	1090	1050
		Orange	1180	1130	1095	1060	1015	975	935	895	850	800
		Red	1100	1045	1010	970	920	885	845	790	745	690
060080	BOTTOM or TWO-SIDES ^{4, 5}	Gray	2290	2225	2155	2090	2015	1930	1845	1750	1640	1515
		Yellow	1810	1760	1725	1685	1640	1600	1555	1520	1480	1415
		Blue	1385	1340	1285	1240	1200	1140	1090	1050	995	950
		Orange	1560	1520	1475	1430	1385	1335	1295	1240	1200	1150
		Red	1055	985	910	860	795	750	680	615	565	495
060100	BOTTOM or TWO-SIDES ^{4, 5}	Gray	2340	2295	2250	2195	2110	2030	1935	1835	1725	1605
		Yellow	1950	1900	1855	1800	1755	1705	1655	1605	1560	1485
		Blue	1750	1700	1650	1605	1555	1500	1455	1395	1350	1300
		Orange	1570	1520	1460	1410	1350	1300	1240	1195	1140	1095
		Red	1350	1280	1225	1155	1105	1045	1000	950	895	830
066120	BOTTOM or TWO-SIDES ^{4, 5}	Gray	2275	2230	2185	2130	2055	1950	1825	1710	1610	1500
		Yellow	1875	1820	1770	1720	1660	1600	1550	1505	1450	1390
		Blue	2170	2125	2075	2025	1975	1900	1790	1695	1590	1470
		Orange ³	1475	1420	1350	1280	1215	1165	1105	1050	995	930
		Red ³	1625	1565	1505	1445	1385	1325	1275	1225	1170	1130

NOTE:

1. A filter is required for each return—air inlet. Airflow performance includes a 3/4-in. (19 mm) washable filter media such as contained in a factory—authorized accessory filter rack. See accessory list. To determine airflow performance without this filter, assume an additional 0.1 in. w.c. available external static pressure.
2. **ADJUST THE BLOWER SPEED TAPS AS NECESSARY FOR THE PROPER AIR TEMPERATURE RISE FOR EACH INSTALLATION.**
3. Shaded areas indicate that this airflow range is **BELOW THE RANGE ALLOWED FOR HEATING OPERATION. THESE AIRFLOW RANGES MAY ONLY BE USED FOR COOLING.**
4. Airflows over 1800 CFM require bottom return, two—side return, or bottom and side return. A minimum filter size of 20" x 25" (508 x 635 mm) is required.
5. For upflow applications, air entering from one side into both the side of the furnace and a return air base counts as a side and bottom return.
6. The "—" entry indicates an unstable operating condition.

9255A

	Unit Size	40,000* BTUH						60,000 BTUH					
		Uninsulated			3/8-in. Insulation			Uninsulated			3/8-in. Insulation		
		1 1/4	2	2 1/2	1 1/4	2	2 1/2	1 1/4	2	2 1/2	1 1/4	2	2 1/2
Winter Design Temp °F	Pipe Dia. In.												
	20	20	20	20	50	45	20	60	50	20	30	25	20
	0	10	5	5	20	25	20	30	25	15	15	10	20
	-20	5			20	15	10	20	15	10	5		20
	-40				15	10	5	15	10	5			20

	Unit Size	80,000 BTUH													
		Uninsulated				3/8-in. Insulation				1/2-in. Insulation					
		1 1/2	2	2 1/2	4	1 1/2	2	2 1/2	3	4	1 1/2	2	2 1/2	3	4
Winter Design Temp °F	Pipe Dia. in.														
	20	15	40	40	35	30	15	50	90	75	65	15	50	70	70
	0	15	20	15	10	5	15	50	45	35	30	15	50	40	35
	-20	15	10	5			15	35	30	20	15	15	40	30	25
	-40	10	5				15	25	20	15	5	15	30	25	20

Unit Size	100,000 BTUH											
	Uninsulated						3/8-in. Insulation					
	2	2 1/2	3	4	2	2 1/2	3	4	2	2 1/2	3	4
Pipe Dia. in.												
20	20	50	40	35	20	80	95	80	20	80	105	90
0	20	20	15	10	20	55	45	35	20	65	55	45
-20	15	10	5		20	35	30	20	20	45	35	25
-40	10	5			20	25	20	10	20	30	25	15

	Unit Size	120,000 BTUH												140,000 BTUH																							
		Uninsulated						3/8-in. Insulation						1/2-in. Insulation						Uninsulated						3/8-in. Insulation						1/2-in. Insulation					
		Pipe Dia. in.		2 1/2	3	4		2 1/2	3	4	2 1/2	3	4	2 1/2	3	4	2 1/2	3	4	2 1/2	3	4	2 1/2	3	4	2 1/2	3	4	2 1/2	3	4						
Winter Design Temp °F	20			10	50	40	10	75	95	10	75	105							5	55	50	5	65	105	5	65	125										
	0			10	20	15	10	55	45	10	65	50							5	25	15	5	65	50	5	65	60										
	-20			10	10	10	10	35	25	10	45	30							5	10	5	5	45	30	5	50	40										
	-40			10	5	5	10	25	15	10	30	20							5	5	5	5	30	20	5	35	25										

Unit Size	40,000* BTUH						60,000 BTUH					
	Uninsulated			1/2-in. Insulation			Uninsulated			3/8-in. Insulation		
	38	51	64	38	51	64	38	51	64	38	51	64
Pipe Dia. in												
-7	6.1	6.1	6.1	6.1	15.2	13.7	6.1	18.3	15.2	6.1	6.1	6.1
-18	3.0	1.5	1.5	6.1	7.6	6.1	9.1	7.6	6.1	13.7	12.2	9.1
-29	1.5			6.1	4.6	3.0	6.1	4.6	3.0	6.1	7.6	6.1
-40				4.6	3.0	1.5	4.6	3.0	1.5	4.6	3.0	4.6

	80,000 BTUH																
	Unit Size		Uninsulated						3/8-in. Insulation				1/2-in. Insulation				
	Pipe Dia. mm		38	51	64	76	102	38	51	64	76	102	38	51	64	76	102
Winter Design Temp °C	-7		4.6	12.2	12.2	10.7	9.1	4.6	15.2	27.4	22.9	19.8	4.6	15.2	21.3	21.3	21.3
	-18		4.6	6.1	4.6	3.0	1.5	4.6	15.2	13.7	10.7	9.1	4.6	15.2	12.2	10.7	10.7
	-29		4.6	3.0	1.5			4.6	10.7	9.1	6.1	4.6	4.6	12.2	9.1	7.6	4.6
	-40		3.0	1.5				4.6	7.6	6.1	4.6	1.5	4.6	9.1	7.6	6.1	3.0

Unit Size	100,000 BTUH											
	Uninsulated						3/8-in. Insulation					
	51		64		76		102		51		76	
Pipe Dia. mm												
-7	6.1	15.2	12.2	10.7	6.1	24.4	28.9	24.4	6.1	24.4	32.0	27.4
-18	6.1	6.1	4.6	3.0	6.1	16.8	13.7	10.7	6.1	19.8	16.7	13.7
-29	4.6	3.0	1.5		6.1	10.7	9.1	6.1	6.1	13.7	10.7	7.6
-40	3.0	1.5			6.1	7.6	6.1	3.0	6.1	9.1	7.6	4.6

	Unit Size	120,000 BTUH						140,000 BTUH											
		Uninsulated			3/8-in. Insulation			Uninsulated			3/8-in. Insulation								
		64	76	102	64	76	102	64	76	102	64	76	102						
Winter Design Temp °C	Pipe Dia. mm																		
	-7	3.0	15.2	12.2	3.0	22.9	28.9	3.0	22.9	32.0	1.5	16.7	15.2	1.5	19.8	32.0	1.5	19.8	38.1
	-18	3.0	6.1	4.6	3.0	16.8	13.7	3.0	19.8	15.2	1.5	7.6	4.6	1.5	19.8	15.2	1.5	19.8	18.3
	-29	3.0	3.0	3.0	3.0	10.7	7.6	3.0	13.7	9.1	1.5	3.0	1.5	1.5	13.7	9.1	1.5	15.2	12.2
	-40	3.0	1.5	1.5	3.0	7.6	4.6	3.0	9.1	6.1	1.5	1.5	1.5	9.1	6.1	1.5	1.5	35	7.6

MAXIMUM EQUIVALENT VENT LENGTH - FT. (M)

Table 2 – Maximum Equivalent Vent Length - Ft.

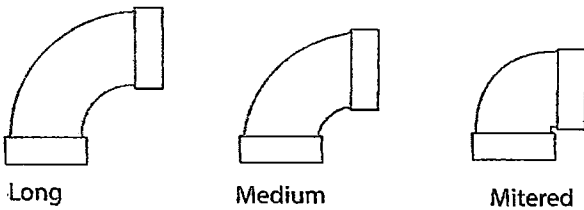
NOTE: Maximum Equivalent Vent Length (MEVL) includes standard and concentric vent termination and does NOT include elbows. Use Table 3 - Deductions from Maximum Equivalent Vent Length to determine allowable vent length for each application.

Unit Size		40,000 Outlet choke required under 10 ft. TEVL			60,000				80,000					100,000				120,000			140,000									
Altitude (feet)	Pipe Dia. (in)	1 ½	2	2 ½	1 ½	2	2 ½	3	1 ½	2	2 ½	3	4	2	2 ½	3	4	2 ½	3	4	2 ½	3	4							
	0-2000	40	155	185	20	100	175	200	15	50	130	175	200	20	80	175	200	10	75	185	5	65	155							
	2001-3000	35	150	175		95	165	185		45	125	165	185		15	75	165		185	70		175	60	140						
	3001-4000	30	135	160	15	90	155	175	10		40	115	155	175		15	70	155	175	5	65	165	60	160	120					
	4001-4500	25	130	155		85	150	170		150		165																		
	4501-5000		125	145		80		165				145	160	165																
	5001-6000	20	120	130		75	140	155		10		65	150	165	N/A	60	155	N/A	50	140	30	65								
	6001-7000	15	110	120	70	130	145	30	90		125												140	60	135	145	45	130	25	45
	7001-8000	10	100	110	65	120	135																							
	8001-9000		90	95	5	60	115	125	20	75	100	105	45	100		115	30		115	10		15								
9001-10000	5	80	85	N/A	55	105	115																							

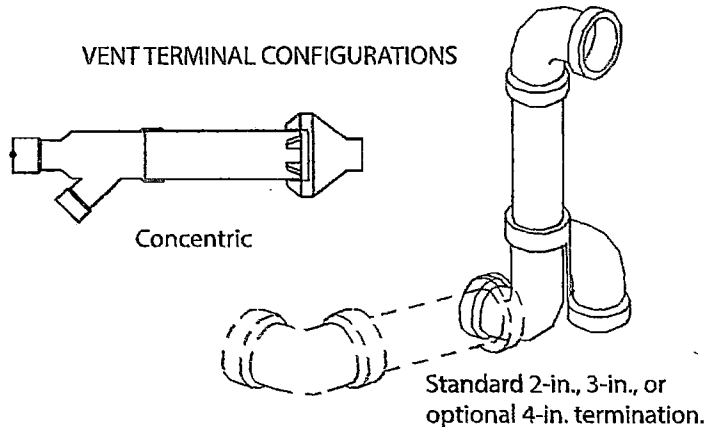
Maximum Equivalent Vent Length - Meters

Unit Size		40,000 Outlet choke required under 10 ft. TEVL			60,000				80,000					100,000				120,000			140,000			
Altitude (meters)	Pipe Dia. (mm)	38	51	64	38	51	64	76	38	51	64	76	102	51	64	76	102	64	76	102	64	76	102	
	0-610	11	57	57	6.5	31	54	61	3	16	40	54	61	6	25	54	61	3	23	57	1.5	21	48	
	611-914	10	53	53		29	51	57	2	15	38	51	57	5	23	51	57		21	54	18	42		
	915-1219	9	49	49	27	48	54	36		48	53		48	54	1.5	20	51	36						
	1220-1370	8	47	47	5	26	46	52	13	34	46	51	3	22	52	N/A	19	50	N/A	16	33			
	1371-1524		45	45		24	46	51			45	50		21	46					51	14	31		
	1525-1829	6	41	41	22	43	47	11	31	42	46	43	48	48	11		25							
	1830-2134	5	37	37	3	25	40	44	N/A	10	27	39	42	19	41		45	16		43	9	20		
	2135-2438	3.5	33	34		20	37	42				36	39	18	38		42	14		40	7	15		
	2439-2743		30	30	1.5	19	35	38				8	26	34	36		15	36		39	13	38	5	10
2744-3048	1.5	26	26	N/A	17	33	36	7				24	31	33	14		34	36		12	35	3.5	5	

ELBOW CONFIGURATIONS



VENT TERMINAL CONFIGURATIONS



A13110

Table 3 – Deductions from Maximum Equivalent Vent Length - Ft. (M)

Pipe Diameter (in):	1-1/2		2		2-1/2		3		4	
Mitered 90° Elbow	8	(2.4)	8	(2.4)	8	(2.4)	8	(2.4)	8	(2.4)
Medium Radius 90° Elbow	5	(1.5)	5	(1.5)	5	(1.5)	5	(1.5)	5	(1.5)
Long Radius 90° Elbow	3	(0.9)	3	(0.9)	3	(0.9)	3	(0.9)	3	(0.9)
Mitered 45° Elbow	4	(1.2)	4	(1.2)	4	(1.2)	4	(1.2)	4	(1.2)
Medium Radius 45° Elbow	2.5	(0.8)	2.5	(0.8)	2.5	(0.8)	2.5	(0.8)	2.5	(0.8)
Long Radius 45° Elbow	1.5	(0.5)	1.5	(0.5)	1.5	(0.5)	1.5	(0.5)	1.5	(0.5)
Tee	16	(4.9)	16	(4.9)	16	(4.9)	16	(4.9)	16	(4.9)
Concentric Vent Termination	N/A		0	(0.0)	N/A		0	(0.0)	N/A	
Standard Vent Termination	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)

Venting System Length Calculations

The Total Equivalent Vent Length (TEVL) for EACH combustion air or vent pipe equals the length of the venting system, plus the equivalent length of elbows used in the venting system from Table 3.

Standard vent terminations or factory accessory concentric vent terminations count for zero deduction.

See vent system manufacturer's data for equivalent lengths of flexible vent pipe or other termination systems. **DO NOT ASSUME** that one foot of flexible vent pipe equals one foot of straight PVC/ABS DWV vent pipe.

Compare the Total Equivalent Vent Length to the Maximum Equivalent Vent Lengths in Tables 2.

Example 1

A direct-vent 60,000 Btuh furnace installed at 2100 ft. (640 M). Venting system includes, **FOR EACH PIPE**, 100 feet (30 M) of vent pipe, 95 feet (28 M) of combustion air inlet pipe, (3) 90° long radius elbows, (2) 45° long radius elbows and a factory accessory concentric vent kit.

Can this application use 2-in. (50 mm ND) PVC/ABS DWV vent piping?

Measure the required linear length of air inlet and vent pipe; insert the longest of the two here:	100 ft	Use length of the longer of the vent or air inlet piping system
Add equiv length of (3) 90° long-radius elbows (use the highest number of elbows for either the vent or inlet pipe)	3 x 3 ft = 9 ft	From Table 3
Add equiv length of (2) 45° long-radius elbows (use the highest number of elbows for either the vent or inlet pipe)	2 x 1.5 ft = 3 ft	From Table 3
Add equiv length of vent termination	0 ft	From Table 3
Add correction for flexible vent pipe, if any	0 ft	From Vent Manufacturer's instructions; zero for PVC/ABS DWV
Total Equivalent Vent Length (TEVL)	112 ft	Add all of the above lines
Maximum Equivalent Vent Length (MEVL)	127 ft	For 2" pipe from Table 2
Is TEVL less than MEVL?	YES	Therefore, 2" pipe may be used

Example 2

A direct-vent 60,000 Btuh furnace installed at 2100 ft. (640 M). Venting system includes, **FOR EACH PIPE**, 100 feet (30 M) of vent pipe, 95 feet (28 M) of combustion air inlet pipe, (3) 90° long radius elbows, and a polypropylene concentric vent kit. Also includes 20 feet (6.1 M) of flexible polypropylene vent pipe, included within the 100 feet (30 M) of vent pipe.

Assume that one meter of flexible 60 mm or 80 mm polypropylene pipe equals 1.8 meters of PVC/ABS pipe. **VERIFY FROM VENT MANUFACTURER'S INSTRUCTIONS.**

Can this application use 60 mm (O.D.) polypropylene vent piping? If not what size piping can be used?

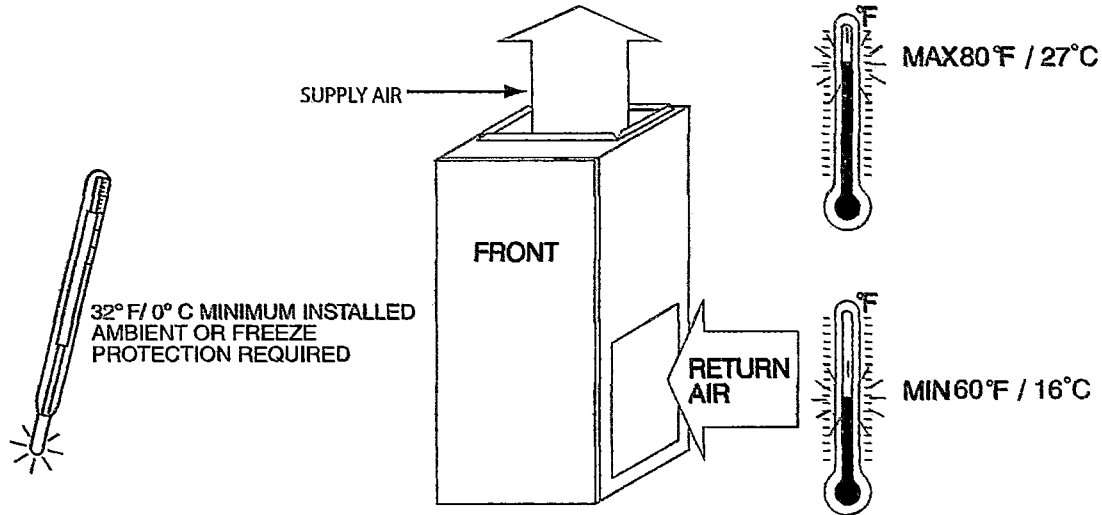
Measure the required linear length of air inlet and vent pipe; insert the longest of the two here:	100 ft	Use length of the longer of the vent or air inlet piping system
Add equiv length of (3) 90° long-radius elbows (use the highest number of elbows for either the vent or inlet pipe)	3 x 3 ft = 9 ft	From Vent Manufacturer's instructions
Add equiv length of (2) 45° long-radius elbows (use the highest number of elbows for either the vent or inlet pipe)	0 x = 0 ft	From Vent Manufacturer's instructions
Add equiv length of vent termination	9 M x 3 ft/M = 18 ft	From Vent Manufacturer's instructions
Add correction for flexible vent pipe, if any	1.8 x 20 ft = 36 ft	From Vent Manufacturer's instructions
Total Equivalent Vent Length (TEVL)	163 ft	Add all of the above lines
Maximum Equivalent Vent Length (MEVL)	127 ft	For 2" pipe from Table 2
Is TEVL less than MEVL?	NO	Therefore, 60mm pipe may NOT be used; try 80 mm
Maximum Equivalent Vent Length (MEVL)	250 ft	For 3" pipe from Table 2
Is TEVL less than MEVL?	YES	Therefore, 80 mm pipe may be used

NOTES:

- Use only the smallest diameter pipe possible for venting. Over-sizing may cause flame disturbance or excessive vent terminal icing or freeze-up.
- NA – Not allowed. Pressure switch will not close, or flame disturbance may result.
- Total equivalent vent lengths under 10' for 40,000 BTUH furnaces from 0 to 2000 ft. (0 to 610 M) above sea level require use of an outlet choke plate. **Failure to use an outlet choke when required may result in flame disturbance or flame sense lockout.**
- Not all furnace families include 140,000 BTUH input models.
- Vent sizing for Canadian installations over 4500 ft (1370 M) above sea level are subject to acceptance by local authorities having jurisdiction.
- Size both the combustion air and vent pipe independently, then use the larger size for both pipes.
- Assume the two 45° elbows equal one 90° elbow. Wide radius elbows are desirable and may be required in some cases.
- Elbow and pipe sections within the furnace casing and at the vent termination should not be included in vent length or elbow count.
- The minimum pipe length is 5 ft. (2 M) linear feet (meters) for all applications.
- Use 3-in. (76 mm) diameter vent termination kit for installations requiring 4-in. (102 mm) diameter pipe.

RETURN AIR TEMPERATURE

This furnace is designed for continuous return-air minimum temperature of 60°F (15°C) db or intermittent operation down to 55°F (13°C) db such as when used with a night setback thermometer. Return-air temperature must not exceed 80°F (27°C) db. Failure to follow these return air limits may affect reliability of heat exchangers, motors and controls.



A10490

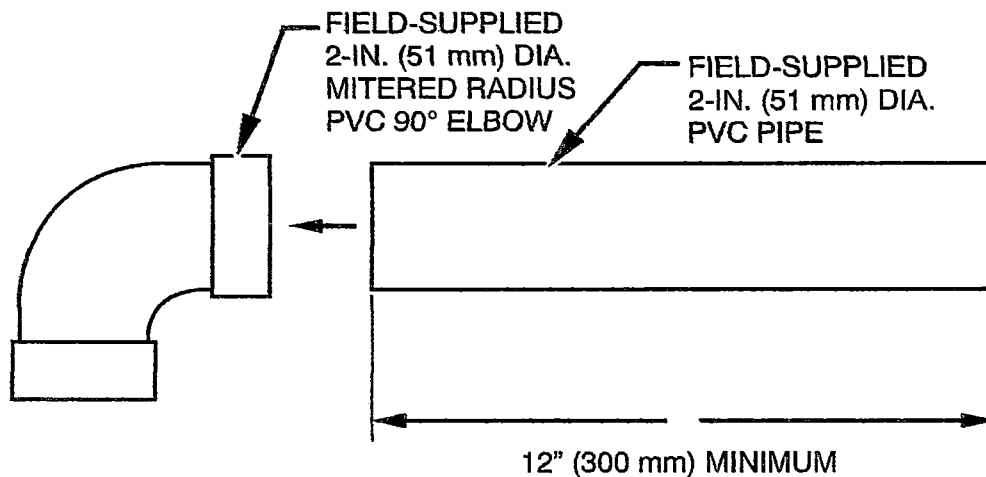
MINIMUM CLEARANCES TO COMBUSTIBLE MATERIALS

POSITION	CLEARANCE
Rear	0 (0 mm)
Front (Combustion air openings in furnace and in structure)	1 in. (25 mm)
Required for service**	24 in. (610 mm)*
All Sides of Supply Plenum**	1 in. (25 mm)
Sides	0 (0 mm)
Vent	0 (0 mm)
Top of Furnace	1 in. (25 mm)

* Recommended

**Consult your local building codes

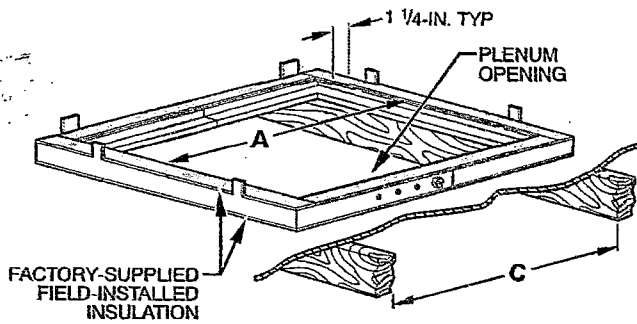
COMBUSTION-AIR PIPE FOR NON-DIRECT (1-PIPE) VENT APPLICATION



NOTE: See Installation Instructions for specific venting configurations.

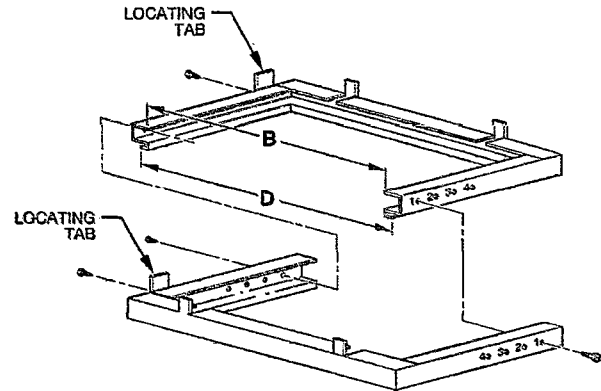
A12376

DOWNFLOW SUBBASE



A97427

Assembled

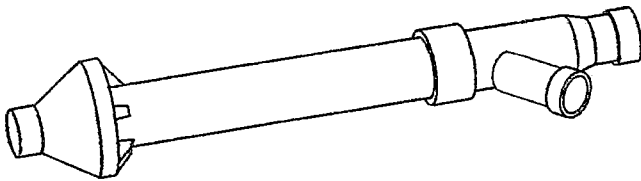


A88207

Disassembled

DIMENSIONS (IN. / MM)						
FURNACE CASING WIDTH	FURNACE IN DOWNFLOW APPLICATION	PLENUM OPENING*		FLOOR OPENING		HOLE NO. FOR WIDTH ADJUSTMENT
		A	B	C	D	
14-3/16 (360)	Furnace with or without Cased Coil Assembly or Coil Box	11-3/16 (322)	19 (483)	13-7/16 (341)	20-5/8 (600)	4
17-1/2 (445)	Furnace with or without Cased Coil Assembly or Coil Box	15-1/8 (384)	19 (483)	16-3/4 (426)	20-5/8 (600)	3
21 (533)	Furnace with or without Cased Coil Assembly or Coil Box	18-5/8 (396)	19 (483)	20-1/4 (514)	20-5/8 (600)	2
24-1/2 (622)	Furnace with or without Cased Coil Assembly or Coil Box	22-1/8 (562)	19 (483)	23-3/4 (603)	20-5/8 (600)	1

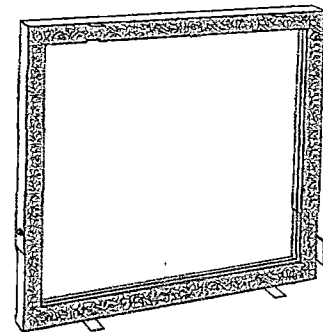
*The plenum should be constructed 1/4-in. (6 mm) smaller in width and depth than the plenum dimensions shown above.



Concentric Vent Kit

A93086

A concentric vent kit allows vent and combustion-air pipes to terminate through a single exit in a roof or side wall. One pipe runs inside the other allowing venting through the inner pipe and combustion air to be drawn in through the outer pipe.



Downflow Subbase

A88202

One base fits all furnace sizes. The base is designed to be installed between the furnace and a combustible floor when no coil box is used or when a coil box other than a Bryant cased coil is used. It is CSA design certified for use with Bryant branded furnaces when installed in downflow applications.

SPECIFICATIONS

The furnace should be sized to provide 100 percent of the design heating load requirement plus any margin that occurs because of furnace model size capacity increments. None of the furnace model sizes can be used if the heating load is 20,000 BTU or lower. Use Air Conditioning Contractors of America (Manual J and S); American Society of Heating, Refrigerating, and Air-Conditioning Engineers; or other approved engineering

method to calculate heating load estimates and select the furnace. Excessive oversizing of the furnace may cause the furnace and/or vent to fail prematurely, customer discomfort and/or vent freezing. Failure to follow these guidelines is considered faulty installation and/or misapplication of the furnace; and resulting failure, damage, or repairs may impact warranty coverage.

Heating Capacity and Efficiency		30040	36040	36060	42060	48080	60080	60100	66120
Input	High Heat (BTUH)	40,000	40,000	60,000	60,000	80,000	80,000	100,000	120,000
Output	High Heat (BTUH)	39,000	39,000	58,000	58,000	78,000	78,000	97,000	117,000
Certified Temperature Rise Range °F (°C)	High Heat	40 - 70 (22 - 39)	40 - 70 (22 - 39)	45 - 75 (25 - 42)	40 - 70 (22 - 39)	40 - 70 (22 - 39)	40 - 70 (22 - 39)	40 - 70 (22 - 39)	40 - 70 (22 - 39)
Airflow Capacity and Blower Data		30040	36040	36060	42060	48080	60080	60100	66120
Rated External Static Pressure (in. w.c.)	Heating	0.10	0.10	0.12	0.12	0.15	0.15	0.20	0.20
	Cooling	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Airflow Delivery @ Rated ESP (CFM)	High Heat	695	705	940	1000	1360	1360	1700	2125
	Cooling	925	1085	1090	1505	1610	2015	2110	2055
Cooling Capacity (tons) @ 400, 350 CFM/ton	CFM/ton	2	2.5	2.5	3.5	4	5	5	5
	CFM/ton	2.5	3	3	4	4.5	5.5	6	6
Direct-Drive Motor Type		Electronically Commutated Motor (ECM)							
Direct-Drive Motor HP		1/2	1/2	1/2	3/4	3/4	1	1	1
Motor Full Load Amps		6.8	6.8	6.8	9.9	9.3	12.3	12.6	11.1
RPM Range		600 - 1200							
Speed Selections		5							
Blower Wheel Dia x Width		in. 11 x 7	11 x 8	11 x 7	11 x 8	11 x 8	11 x 10	11 x 10	11 x 11
Air Filtration System		Factory Supplied Media Cabinet Field Supplied Filter							
Filter Used for Certified Watt Data		KGAWF1506UFR							
Electrical Data		30040	36040	36060	42060	48080	60080	60100	66120
Input Voltage	Volts-Hertz-Phase	115-60-1							
Operating Voltage Range	Min-Max	104-127							
Maximum Input Amps	Amps	7.4	7.4	7.5	10.6	10.0	13.0	13.4	11.9
Unit Ampacity	Amps	10.3	10.3	10.4	14.2	13.5	17.2	17.7	15.8
Minimum Wire Size	AWG	14	14	14	14	14	12	12	12
Maximum Wire Length @ Minimum Wire Size	Feet (M)	36 (11.0)	36 (11.0)	35 (10.7)	26 (7.9)	27 (8.2)	33 (10.1)	32 (9.8)	36 (11.0)
Maximum Fuse/Ckt Bkr (Time-Delay Type Recommended)	Amps	15	15	15	15	15	20	20	20
Transformer Capacity (24vac output)		40 VA							
External Control Power Available	Heating	27.9 VA							
	Cooling	34.6 VA							
Controls		30040	36040	36060	42060	48080	60080	60100	66120
Gas Connection Size		1/2" - NPT							
Burners (Monoport)		2	2	3	3	4	4	5	6
Gas Valve (Redundant)		White Rodgers							
Minimum Inlet Gas pressure (in. wc)		4.5							
Maximum Inlet Gas pressure (in. wc)		13.6							
Manufactured (Mobile) Home Kit		See Accessory Listing							
Ignition Device		Silicon Nitride							
Limit Control		165	180	165	180	170	200	180	160
Heating Blower Control (Heating Off-Delay)		Adjustable: 90, 120, 150, 180 seconds							
Cooling Blower Control (Time Delay Relay)		90 seconds							
Communication System		none							
Thermostat Connections		Com 24V, R, W, G, Y/Y2, DHUM, Y1							
Accessory Connections		EAC (115vac); HUM (24vac); 1-stg AC (via Y/Y2)							

* See Accessory List for part numbers available.

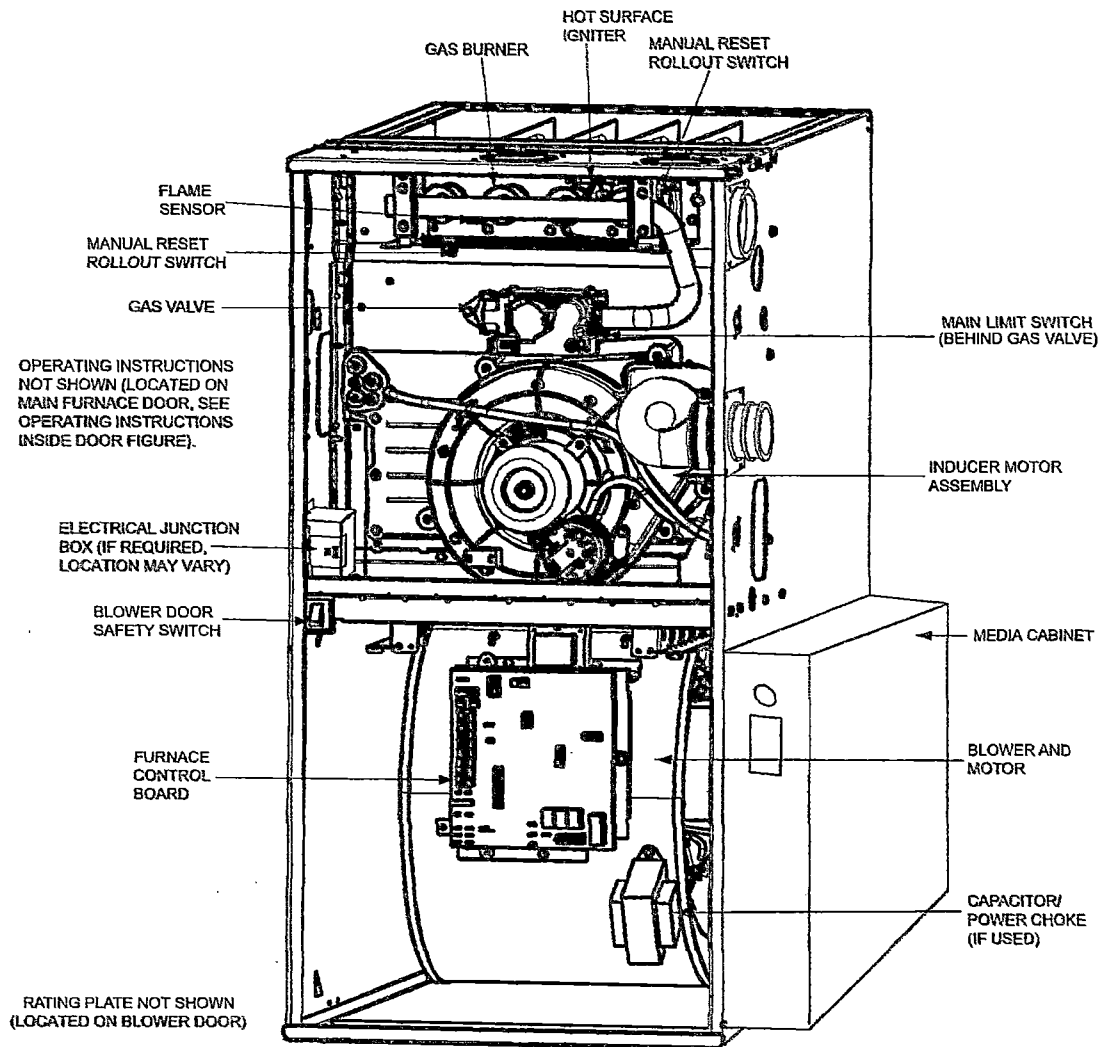
MODEL NUMBER NOMENCLATURE

Example of a Model Number

1-2 Family/Tier	3 Base Eff.	4 Htg. Stages	5 Major Series	6-7 Cig. Cap.	8-10 Htg. Cap.	11 Motor	12-13 Width	14 Voltage	15 Features	16 Minor Series
98	6	T	A	30	040	V	14	A		A
91 - Legacy 92 - Preferred 98 - Evolution	0 - +90 AFUE 2 - +92 AFUE 3 - +93 AFUE 5 - +95 AFUE 6 - +96 AFUE 7 - +97 AFUE	S - Single Stage T - Two Stage M - Modulating		24 - 800 CFM 30 - 1000 CFM 36 - 1200 CFM 42 - 1400 CFM 48 - 1600 CFM 54 - 1800 CFM 60 - 2000 CFM 66 - 2200 CFM (@ 0.5" ESP)	040 = 40,000 BTU 060 = 60,000 BTU 080 = 80,000 BTU 100 = 100,000 BTU 120 = 120,000 BTU 140 = 140,000 BTU	S - Standard E - Energy Efficient V - Variable Speed	14 - 14.2" 17 - 17.5" 21 - 21.0" 24 - 24.5"	Voltage	L - Low NOx	

Not all families have these models.

FURNACE COMPONENTS



REPRESENTATIVE DRAWING ONLY, SOME MODELS MAY VARY IN APPEARANCE.

A11408

SAP ORDERING NO.	CASING DIMENSIONS (IN.)			RATED HEATING OUTPUT†			HEATING AIRFLOW		COOLING CFM @ 0.5 ESP (in. W.C.)	MOTOR HP SPEED	MEDIA CABINET SUPPLIED (IN.)
	H	D	W	BTUH	AFUE	ENERGY STAR	HEATING CFM	HEATING ESP (in. W.C.)			
925SA30040E14	35	29.5	14.2	39,000	96.2%	✓	695	0.1	925	1/2 - 5	16
925SA36040E17	35	29.5	17.5	39,000	96.2%	✓	705	0.1	1085	1/2 - 5	16
925SA36060E14	35	29.5	14.2	58,000	95.5%		940	0.12	1090	1/2 - 5	16
925SA42060E17	35	29.5	17.5	58,000	96.2%	✓	1000	0.12	1505	3/4 - 5	16
925SA48080E17	35	29.5	17.5	78,000	96.2%	✓	1360	0.15	1610	3/4 - 5	16
925SA60080E21	35	29.5	21.0	78,000	96.2%	✓	1360	0.15	2015	1 - 5	20
925SA60100E21	35	29.5	21.0	97,000	96.2%	-	1700	0.2	2110	1 - 5	20
925SA66120E24	35	29.5	24.0	117,000	96.2%	-	2125	0.2	2055	1 - 5	24

† Capacity in accordance with DOE test procedures. Ratings are position dependent. See rating plate.

‡ Heating CFM at factory default blower motor heating tap settings.

ESP - External Static Pressure

✓ Meets ENERGY STAR criteria

FEATURES AND BENEFITS

SmartEvap™ Technology — When paired with a compatible thermostat, this dehumidification feature overrides the cooling blower off-delay when there is a call for dehumidification. By deactivating the blower off-delay, SmartEvap technology prevents condensate that remains on the coil after a dehumidification cycle from re-humidifying throughout the home. This results in reduced humidity and a more comfortable indoor environment for the homeowner.

Unlike competitive systems, SmartEvap technology only overrides the cooling blower off delay, when humidity control is needed. Once humidity is back in control, SmartEvap re-enables the energy-saving cooling blower off-delay.

Fan On Plus™ Technology — Sometimes the constant fan setting on a standard furnace system can actually reduce homeowner comfort by providing too much or too little air! Fan On Plus technology improves comfort all year long by allowing the homeowner to select the continuous fan speed of their choice using a compatible thermostat.

HYBRID HEAT® Dual Fuel system — This system can provide more control over your monthly energy bills by automatically selecting the most economical method of heating. With HYBRID HEAT, our system automatically switches between the gas furnace and the electric heat pump as outside temperatures change to maintain greater efficiency and comfort than with any traditional single-source heating system. The heat pump also delivers high-efficiency cooling in the summer.

Power Heat™ Igniter — Bryant's unique SiN igniter is not only physically robust but it is also electrically robust. It is capable of running at line voltage and does not require complex voltage regulators as do other brands. This unique feature further enhances the gas furnace reliability and continues Bryant's tradition of technology leadership and innovation in providing a reliable and durable product.

Boost ECM Blower Motor — This basic ECM, or electronically commutated motor, can provide an efficiency enhancement for select Bryant air conditioner or heat pump systems. It uses less electrical power than its PSC counterpart and also has a wider range of speeds.

Reliable Heat Exchanger Design — The aluminized steel, clam shell primary heat exchanger was re-engineered to achieve greater efficiency out of a smaller size. The first two passes of the heat exchanger are based on the current 80% product, a design with more than ten years of field-proven performance and success. These innovations, paired with the continuation of a crimped, no-weld seam create an efficient, robust design for this essential component.

The condensing heat exchanger, a stainless steel fin and tube design, is positioned in the furnace to extract additional heat. Stainless steel coupling box componentry between heat exchangers

has exceptional corrosion resistance in both natural gas and propane applications.

Media Filter Cabinet — Enhanced indoor air quality in the home is made easier with our media filter cabinet—a standard accessory on all deluxe furnaces. When installed as a part of the system, this cabinet allows for easy and convenient addition of a Bryant high efficiency air filter.

4-Way Multipoise Design — One model for all applications — there is no need to stock special downflow or horizontal models when one unit will do it all. The new heat exchanger design allows these units to achieve the certified AFUE in all positions.

Direct or Single-pipe Venting, or Optional Ventilated Combustion Air — This furnace can be installed as a 2-pipe (Direct Vent) furnace, in an optional ventilated combustion air application, or in single-pipe, non-direct vent applications. This provides added flexibility to meet diverse installation needs.

Sealed Combustion System — This furnace brings in combustion air from outside the furnace, which results in especially quiet operation. By sealing the entire combustion vestibule, the entire furnace can be made quieter, not just the burners.

Insulated Casing — Foil-faced insulation in heat exchanger section of the casing minimizes heat loss. The acoustical insulation in the blower compartment reduces air and motor noise for quiet operation.

Monoport Burners — The burners are specially designed and finely tuned for smooth, quiet combustion and economical operation.

Bottom Closure — Factory-installed for side return; easily removable for bottom return. The multi-use bottom closure can also serve for roll-out protection in horizontal applications, and act as the bottom closure for the optional return air base accessory.

Blower Access Panel Switch — Automatically shuts off 115-v power to furnace whenever blower access panel is opened.

Quality Registration — Our furnaces are engineered and manufactured under an ISO 9001 registered quality system.

Certifications — This furnace is CSA (AGA and CGA) design certified for use with natural and propane gases. The furnace is factory-shipped for use with natural gas. A CSA listed gas conversion kit is required to convert furnace for use with propane gas. The efficiency is AHRI efficiency rating certified. This furnace meets California Air Quality Management District emission requirements.



GUIDE SPECIFICATIONS

General

System Description

Furnish a _____ 4-way multipoise gas-fired condensing furnace for use with natural gas or propane (factory-authorized conversion kit required for propane); furnish external media cabinet for use with accessory media filter or standard filter.

Quality Assurance

Unit will be designed, tested and constructed to the current ANSI Z 21.47/CSA 2.3 design standard for gas-fired central furnaces.

Unit will be third party certified by CSA to the current ANSI Z 21.47/CSA 2.3 design standard for gas-fired central furnaces. Unit will carry the CSA Blue Star® and Blue Flame® labels. Unit efficiency testing will be performed per the current DOE test procedure as listed in the Federal Register.

Unit will be certified for capacity and efficiency and listed in the latest AHRI Consumer's Directory of Certified Efficiency Ratings.

Unit will carry the current Federal Trade Commission Energy Guide efficiency label.

Delivery, Storage, and Handling

Unit will be shipped as single package only and is stored and handled per unit manufacturer's recommendations.

Warranty (for inclusion by specifying engineer)

U.S. and Canada only. Warranty certificate available upon request.

Equipment

Blower Wheel and ECM Blower Motor

Galvanized blower wheel shall be centrifugal type, statically and dynamically balanced. Blower motor of ECM type shall be permanently lubricated with sealed ball bearings, of _____ hp, and have multiple speeds from 600-1200 RPM operating only when 24-VAC motor inputs are provided. Blower motor shall be direct drive and soft mounted to the blower housing to reduce vibration transmission.

Filters

Furnace shall have reusable-type filters. Filter shall be _____ in. (mm) X _____ in. (mm). An accessory highly efficient Media Filter is available as an option. _____ Media Filter.

Casing

Casing shall be of .030 in. thickness minimum, pre-painted steel.

Draft Inducer Motor

Draft inducer motor shall be single-speed PSC design.

Primary Heat Exchangers

Primary heat exchangers shall be 3-Pass corrosion-resistant aluminized steel of fold-and-crimp sectional design and applied operating under negative pressure.

Secondary Heat Exchangers

Secondary heat exchangers shall be of a stainless steel flow-through of fin-and-tube design and applied operating under negative pressure.

Controls

Controls shall include a micro-processor-based integrated electronic control board with at least 16 service troubleshooting codes displayed via diagnostic flashing LED light on the control, a self-test feature that checks all major functions of the furnace, and a replaceable automotive-type circuit protection fuse. Multiple operational settings available, including blower speeds for high heat, low cooling, high cooling. Continuous fan speed may be adjusted from the thermostat.

Operating Characteristics

Heating capacity shall be _____ Btuh input;
_____ Btuh output capacity.

Fuel Gas Efficiency shall be _____ AFUE.

Air delivery shall be _____ cfm minimum at 0.50 in. wc. external static pressure.

Dimensions shall be: depth _____ in. (mm); width _____ in. (mm); height _____ in. (mm) (casing only). Height shall be _____ in. (mm) with A/C coil and _____ in. (mm) overall with plenum.

Electrical Requirements

Electrical supply shall be 115 volts, 60 Hz, single-phase (nominal). Minimum wire size shall be _____ AWG; maximum fuse size of HACR-type designated circuit breaker shall be _____ amps.

Special Features

Refer to section of the product data identifying accessories and descriptions for specific features and available enhancements.

113A
Legacy™ Line 13 Air Conditioner
with Puron® Refrigerant
1-1/2 to 5 Nominal Tons (Sizes 018-060)

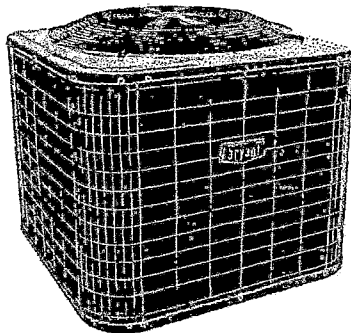
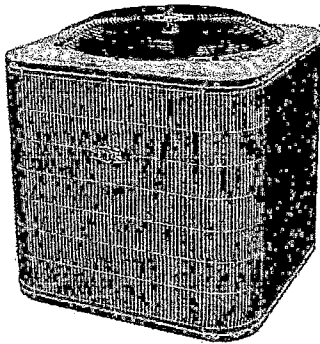


Product Data

234 20th Ave
3.5 ton unit

INDUSTRY LEADING FEATURES / BENEFITS

113ANA0420



Bryant's Air Conditioners with Puron® refrigerant provide a collection of features unmatched by any other family of equipment. The 113A has been designed utilizing Bryant'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.

Efficiency

- 13.0 - 13.2 SEER/10.8- 11.0 EER (based on tested combinations)
- Microtube Technology™ refrigeration system
- Indoor air quality accessories available

Sound

- Sound level as low as 75 dBA
- Sound level as low as 74 dBA with accessory sound blanket

Comfort

- System supports Thermidistat™ or standard thermostat controls

Reliability

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

Durability

DuraGuard™ protection package:

- Solid, durable sheet metal construction
- Dense wire coil guard available (3-phase units come standard with dense wire coil guard)
- 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

1	2	3	4	5	6	7	8	9	10	11	12	14
N	N	N	A	A/N	N	N	N	N	A/N	A/N	N	A
1	1	3	A	N	A	0	3	6	0	0	0	0
Product Family	Tier	SEER	Major Series	Voltage	Grille Variations	Cooling Capacity		Open	Open	Open	Series	
1=AC	1= Legacy RNC	3=13 SEER	A=Puron	N= 208-230-1 P = 208/230-3 E = 460/3	A = Dense W = Wide	1,000 Btuh (nominal)		0=Not Defined	0=Not Defined	0=Not Defined		



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.



ISO 9001
QMI-SAI Global



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	018	024	030	036	042	048	060
Puron Refrigerant	X	X	X	X	X	X	X
Maximum SEER	14.50	14.25	15.0	14.0	14.0	14.0	13.5
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 (standard on 3-Phase only)			X	X	X	X	X

X = Standard

PHYSICAL DATA

UNIT SIZE—SERIES (VOLTAGE)	018—E (N)	024—D (N)	030—E (N,P)	036—E (N,P,E)	042—C (N,P,E)	048—E (N,P,E)	060—G (N)	060—G (P,E)
Operating Weight lb (kg)	107 (48.5)	110 (50.0)	111 (50.3)	141 (64.0)	190 (86.2)	186 (84.4)	190 (86.2)	215 (97.5)
Shipping Weight lb (kg)	130 (60.0)	134 (60.8)	136 (61.7)	170 (77.1)	218 (98.9)	224 (101.6)	226 (102.5)	250 (113.4)
Compressor Type	Scroll							
REFRIGERANT	Puron® (R—410A)							
Control	TXV (Puron® Hard Shutoff)							
Charge lb (kg)	3.50 (1.6)	3.80 (1.7)	4.10 (1.9)	5.34 (2.4)	5.84 (2.7)	7.00 (3.2)	8.19 (3.7)	8.00 (3.6)
COND FAN	Propeller Type, Direct Drive							
Air Discharge	Vertical							
Air Qty (CFM)	1792	2218	2218	2954	3167	3365	3365	3365
Motor HP	1/12	1/10	1/10	1/4	1/5	1/4	1/4	1/4
Motor RPM	1100	1100	1100	1100	1100	1100	800	1100
COND COIL								
Face Area (Sq ft)	8.40	8.40	9.80	13.13	17.25	19.40	12.93	15.09
Fins per In.	20	25	25	25	25	25	20	20
Rows	1	1	1	1	1	1	2	2
Circuits	3	3	3	3	4	5	5	6
VALVE CONNECT. (In. ID)								
Vapor	3/4	3/4	3/4	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
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.

REFRIGERANT PIPING LENGTH LIMITATIONS

Liquid Line Sizing and Maximum Total Equivalent Length† 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										
			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)		
018 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*		
024 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*		
030 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*		
036 AC with Puron	3/8	5/16	175	250*	150	100	100	100	75	--	--	--	--
		3/8	250*	250*	250*	250*	250*	250*	250*	250*	250*		
		5/16	250*	250*	250*	250*	250*	250*	250*	250*	250*		
042 AC with Puron	3/8	5/16	125	100	100	75	75	50	--	--	--	--	--
		3/8	250*	250*	250*	250*	250*	250*	250*	250*	250*		
		5/16	250*	250*	250*	250*	250*	250*	250*	250*	250*		
048 AC with Puron	3/8	3/8	250*	250*	250*	250*	250*	250*	230	160	--	--	--
		5/16	250*	250*	250*	250*	250*	250*	250*	250*	250*		
		3/8	250*	250*	250*	250*	250*	250*	250*	250*	250*		
060 AC with Puron	3/8	3/8	250*	250*	250*	225*	190	150	110	--	--	--	--
		5/16	250*	250*	250*	250*	250*	250*	250*	250*	250*		
		3/8	250*	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

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										
			25 (7.8)	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)			
018 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*			
024 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*			
030 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*			
036 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*			
		5/16	250*	250*	250*	250*	250*	250*	250*	250*			
042 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*			
		5/16	250*	250*	250*	250*	250*	250*	250*	250*			
048 AC with Puron	3/8	3/8	250*	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*			
060 AC with Puron	3/8	3/8	250*	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*			

* 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

REFRIGERANT CHARGE ADJUSTMENTS

Liquid Line Size	Puron Charge oz/ft (g/m)
3/8	0.60 (17.74) (Factory charge for lineset = 9 oz / 266.16 g)
5/16	0.40 (11.83)
1/4	0.27 (7.98)

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) vertical or 120 (36.6) total	120 (36.6)
3/8	80 (24.4)	35 (10.7) vertical or 80 (24.4) total	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:

Vapor Line Sizing and Cooling Capacity Losses — Puron® Refrigerant 1-Stage Air Conditioner Applications

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)
018 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
024 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
030 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
036 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
042 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
048 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
060 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.

113A

ACCESSORIES

KIT NUMBER	DESCRIPTION	Size – Series (Voltage)															
		018–E (N)	024–D (N)	030–E (N)	030–E (P)	036–E (N)	036–E (P)	036–E (E)	042–C (N)	042–C (P)	042–C (E)	048–E (N)	048–E (P)	048–E (E)	060–G (N)	060–G (P)	060–G (E)
HC32GE234	MOTOR FAN	X															
HC34GE239	MOTOR FAN		X	X	X												
HC38GE219	MOTOR FAN								X	X							
HC38GE461	MOTOR FAN										X						
HC40GE225	MOTOR FAN														X		
HC40GE226	MOTOR FAN					X	X					X	X			X	
HC40GE466	MOTOR FAN							X						X			X
KAACH1201AAA	KIT CRKC HTR								X	X		X	X		X	X	
KAACH1401AAA	KIT CRKC HTR	X	X	X	X	X	X										
KAACH1501AAA	KIT CRKC HTR							X									
KAACH1801AAA	KIT CRKC HTR																
KAACH1901AAA	KIT CRKC HTR										X			X			X
KAACH2001AAA	KIT CRKC HTR																
KAACS0201PTC	KIT PTC	X	X	X		X			X			X			X		
KAAFT0101AAA	KIT FRZ THERM	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
KAAH0501PUR	KIT PRESSURE SW	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
KAALP0401PUR	KIT PRESSURE SW	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
KAALS0201LLS	KIT SOL VALVE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
KAATD0101TDR	KIT TIME DELAY	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
KAAWS0101AAA	KIT WINTER ST	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
KSACY0101AAA	KIT CYCLE PROTR	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
KSAHS1701AAA	KIT HARD START	X	X	X		X			X			X			X		
KSALA0301410	KIT LOW AMBIENT	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
KSALA0601AAA	KIT MOTOR MASTER	X	X	X	X	X	X		X	X		X	X		X	X	
KSALA0701AAA	KIT MOTOR MASTER							X			X			X			X
KSASF0101AAA	KIT SPRT FEET	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
KSASH0601COP	KIT SOUND BLKT	X	X	X	X	X	X	X	X	X	X	X	X	X			
KSASH2101COP	KIT SOUND BLKT														X	X	X
KSATX0201PUR	KIT TXV	X	X	X	X												
KSATX0301PUR	KIT TXV					X	X	X	X	X	X						
KSATX0401PUR	KIT TXV											X	X	X			
KSATX0501PUR	KIT TXV														X	X	X

X = Accessory

ACCESSORY THERMOSTATS

PART NUMBER	PROGRAM	ELECTRIC	HEAT	COOL
T1-PAC01	5-2 Day	✓	1	1
T1-NAC01	NP		1	1

THERMOSTAT ACCESSORIES		
PART NUMBER	BRIEF DESCRIPTION	THERMOSTATS USED WITH
TSTATXXCNV10	Thermostat Conversion Kit (4 to 5 wire) – 10 pack	All Bryant® branded thermostats
TX-MBP01	Medium Decorative Backplate	T2-Nxx and T1-Pxx
TX-SBP01	Small Decorative Backplate	T1-Nxx

ACCESSORY USAGE GUIDELINE

ACCESSORY	REQUIRED FOR LOW-AMBIENT COOLING APPLICATIONS (Below 55°F/12.8°C)	REQUIRED FOR LONG LINE APPLICATIONS*	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 set lengths between 80 and 200 ft. (24.38 and 60.96 m) horizontal or 35 ft. (10.7 m) vertical differential (total equivalent length), refer to the Residential Split-System Longline Application Guideline.

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

Required if Low Pressure Switch is factory or field installed.

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.

Accessory Description and Usage (Listed Alphabetically) (Continued)

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 Bryant 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 Bryant thermostats listed in this publication.

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.

ELECTRICAL DATA

UNIT SIZE - SERIES (VOLTAGE)	V/PH	OPER VOLTS*		COMPR		FAN	MCA	MIN WIRE SIZE†	MIN WIRE SIZE†	MAX LENGTH ft. (m)‡	MAX LENGTH ft. (m)‡	MAX FUSE** or CKT BRK AMPS
		MAX	MIN	LRA	RLA	FLA		60° C	75° C	60° C	75° C	
018-E (N)	208/230/1	253	197	48.0	9.0	0.5	11.8	14	14	67 (20.4)	63 (19.2)	20
024-D (N)				58.3	13.5	0.77	17.6	14	14	45 (13.7)	43 (13.1)	25
030-E (N)				64.0	12.8	0.77	16.8	14	14	47 (14.3)	45 (13.7)	25
036-E (N)				77.0	15.3	1.4	21.5	12	12	58 (17.7)	55 (16.8)	30
042-C (N)				112.0	17.9	1.1	23.5	12	12	53 (16.2)	51 (15.5)	40
048-E (N)				109.0	19.9	1.4	26.2	10	10	76 (23.2)	73 (22.3)	40
060-G (N)				134.0	26.4	1.2	34.2	8	10	91 (27.7)	56 (17.1)	50
030-E (P)	208/230-3	253	197	58.0	8.3	0.77	11.2	14	14	81 (24.7)	77 (23.5)	20
036-E (P)				71.0	10.5	1.4	14.5	14	14	63 (19.2)	60 (18.3)	20
042-C (P)				88.0	13.5	1.1	18.0	14	14	51 (15.5)	48 (14.6)	30
048-E (P)				83.1	13.1	1.4	17.8	10	10	130 (39.6)	123 (37.5)	30
060-G (P)				110.0	16.0	1.4	21.4	12	12	67 (20.4)	64 (16.5)	30
036-E (E)	460-3	506	414	38.0	5.6	0.7	7.7	14	14	236 (71.9)	225 (68.5)	15
042-C (E)				44.0	6.0	0.6	8.1	14	14	225 (68.5)	214 (65.2)	15
048-E (E)				41.0	6.1	0.7	8.3	14	14	219 (66.8)	208 (63.4)	15
060-G (E)				52.0	7.8	0.7	10.5	14	14	173 (52.7)	165 (50.3)	15

* 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 336-26. 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 2010 requirements of ASHRAE Standards 90.1

A-WEIGHTED SOUND POWER LEVEL

UNIT SIZE - SERIES (VOLTAGE)	STANDARD RATING dBA	TYPICAL OCTAVE BAND SPECTRUM (dBA, without tone adjustment)						
		125	250	500	1000	2000	4000	8000
018-E (N)	72	53.5	59.5	63.5	67.0	63.5	59.0	52.5
024-D (N)	76	55.0	61.5	67.0	71.5	69.0	61.0	55.0
030-E (N,P)	74	55.0	63.5	68.5	68.5	65.5	61.0	54.0
036-E (N, P, E)	75	59.5	63.0	68.5	70.0	65.5	61.5	53.5
042-C (N, P, E)	78	57.5	65.0	71.0	73.0	70.5	67.5	62.5
048-E (N, P, E)	80	58.5	67.5	73.5	75.0	70.5	67.5	64.5
060-G (N)	78	59.0	67.5	71.5	73.5	69.0	66.0	63.5
060-G (P, E)	79	59.5	69.5	72.5	73.5	71.0	68.0	63.5

NOTE: Tested in accordance with AHRI Standard 270-2008 (not listed in AHRI).

A-WEIGHTED SOUND POWER LEVEL WITH SOUND SHIELD

UNIT SIZE - SERIES (VOLTAGE)	STANDARD RATING dBA	TYPICAL OCTAVE BAND SPECTRUM (dBA, without tone adjustment)						
		125	250	500	1000	2000	4000	8000
018-E (N)	71	55.5	60.5	64.0	66.0	63.0	58.5	52.0
024-D (N)	74	55.5	60.5	66.5	70.0	67.0	61.0	53.5
030-E (N,P)	73	55.5	64.0	68.0	67.0	64.0	60.0	52.5
036-E (N, P, E)	74	59.5	63.0	68.0	69.5	65.0	60.5	50.5
042-C (N, P, E)	77	57.5	65.0	70.5	72.0	70.0	67.0	62.0
048-E (N, P, E)	79	60.5	67.5	73.5	74.5	71.0	68.0	63.5
060-G (N)	78	59.0	68.0	70.5	72.5	68.0	67.0	63.0
060-G (P, E)	78	60.5	69.5	72.5	73.0	71.0	67.5	61.5

NOTE: Tested in accordance with AHRI Standard 270-2008 (not listed in AHRI).

CHARGING SUBCOOLING (TXV-TYPE EXPANSION DEVICE)

UNIT SIZE - SERIES (VOLTAGE)	REQUIRED SUBCOOLING °F (°C)
018-E (N)	10 (5.6)
024-D (N)	10 (5.6)
030-E (N, P)	10 (5.6)
036-E (N, P, E)	14 (7.8)
042-C (N, P, E)	10 (5.6)
048-E (N, P, E)	15 (8.3)
060-G (N)	13 (7.2)
060-G (P, E)	10 (5.6)

DIMENSIONS - ENGLISH

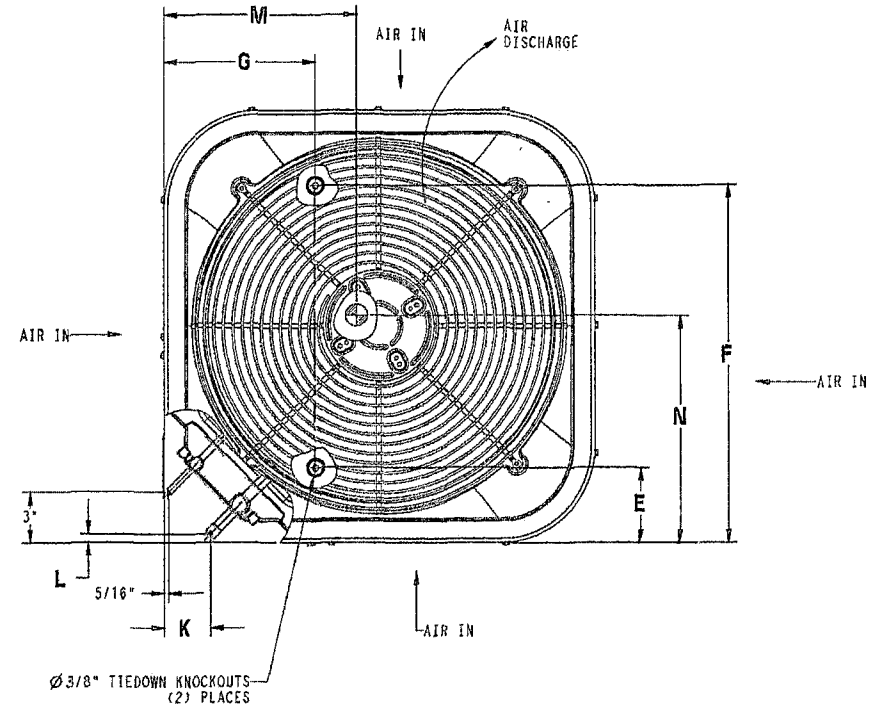
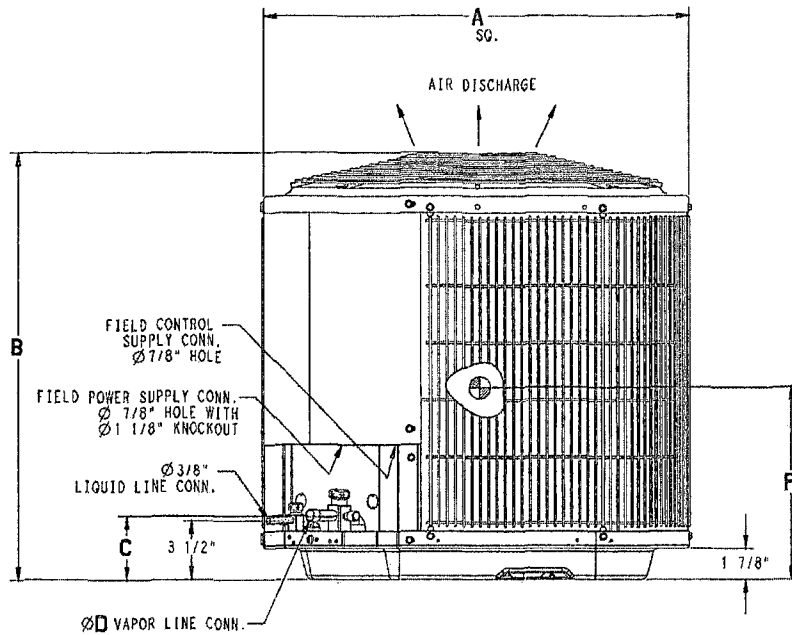
UNIT	SERIES	ELECTRICAL CHARACTERISTICS				A	B	C	D	E	F	G	K	L	M	N	P	OPERATING WEIGHT (lbs)	SHIPPING WEIGHT (lbs)	SHIPPING DIMENSIONS (L x W x H)		
113A018	E	X	O	O	O	23 1/8"	25 5/16"	3 3/4"	3/4"	4 7/16"	18 1/16"	7 13/16"	2 13/16"	1/2"	16 1/2"	15"	12"	107	130	24 1/4" X 27 3/8" X 33 1/2"		
113A024	D	X	O	O	O	23 1/8"	25 5/16"	3 3/4"	3/4"	4 7/16"	18 1/16"	7 13/16"	2 13/16"	1/2"	16 1/2"	15"	12"	110	134	24 1/4" X 27 3/8" X 33 1/2"		
113A030	E	X	O	X	O	23 1/8"	28 11/16"	3 3/4"	3/4"	4 7/16"	18 1/16"	7 13/16"	2 13/16"	1/2"	16 1/2"	15"	14"	111	136	24 1/4" X 27 3/8" X 33 1/2"		
113A036	E	X	O	X	X	25 3/4"	32 5/16"	3 7/8"	7/8"	4 7/16"	21 1/4"	9 1/8"	2 15/16"	5/8"	14 1/4"	10 1/2"	16"	141	170	26 7/8" X 30 1/16" X 35 15/16"		
113A042	C	X	O	X	X	31 3/16"	32 5/16"	3 7/8"	7/8"	6 9/16"	24 11/16"	9 1/8"	2 15/16"	5/8"	15 3/4"	16 1/4"	13 3/4"	189	217	32 3/8" X 35 1/2" X 35 15/16"		
113A048	E	X	O	X	X	31 3/16"	35 3/4"	3 7/8"	7/8"	6 9/16"	24 11/16"	9 1/8"	2 15/16"	5/8"	16 3/8"	15 1/4"		186	224	32 3/8" X 35 1/2" X 39 3/8"		
113A060	G	X	O	O	O	31 3/16"	25 1/2"	3 7/8"	7/8"	6 9/16"	24 11/16"	9 1/8"	2 15/16"	5/8"	14 1/8"	15 3/8"	11 3/4"	190	226	32 3/8" X 35 1/2" X 32 9/16"		
113A060	G	O	O	X	X	31 3/16"	28 15/16"	3 7/8"	7/8"	6 9/16"	24 11/16"	9 1/8"	2 15/16"	5/8"	16"	15 1/2"	12 3/4"	198	230	32 3/8" X 35 1/2" X 32 9/16"		

208-230-460

575

208/230-360

460-3-60

X = YES
O = NO

UNIT SIZE	MINIMUM MOUNTING PAD DIMENSIONS
18, 24, 30	23 1/2" X 23 1/2"
36	26" X 26"
42, 48, 60	31 1/2" X 31 1/2"
-	35" X 35"

DIMENSIONS - SI

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)		
113A018	E	X	O	O	O		587.3	643.0	95.2	19.0	112.7	458.8	198.4	71.4	12.7	419.1	381.0	304.8	48.5	59.0	616.0 x 695.3 x 850.9		
113A024	D	X	O	O	O		587.3	643.0	95.2	19.0	112.7	458.8	198.4	71.4	12.7	419.1	381.0	304.8	49.9	60.8	616.0 x 695.3 x 850.9		
113A030	E	X	O	X	O		587.3	728.7	95.2	19.0	112.7	458.8	198.4	71.4	12.7	419.1	381.0	355.6	50.3	61.7	616.0 x 695.3 x 850.9		
113A036	E	X	O	X	X		654.0	820.8	98.4	22.2	112.7	539.8	231.8	74.6	15.9	362.0	266.7	406.4	64.0	77.1	682.6 x 763.6 x 912.8		
113A042	C	X	O	X	X		792.2	820.8	98.4	22.2	166.7	627.1	231.8	74.6	15.9	400.0	412.8	349.2	85.7	98.4	822.3 x 901.7 x 912.8		
113A048	E	X	O	X	X		792.2	908.0	98.4	22.2	166.7	627.1	231.8	74.6	15.9	415.9	390.5	387.4	84.4	101.6	822.3 x 901.7 x 1000.1		
113A060	G	X	O	O	O		792.2	647.7	98.4	22.2	166.7	627.1	231.8	74.6	15.9	358.8	390.5	298.4	86.2	102.5	822.3 x 901.7 x 827.1		
113A060	G	O	O	X	X		792.2	735.0	98.4	22.2	166.7	627.1	231.8	74.6	15.9	406.4	393.7	323.9	89.8	104.3	822.3 x 901.7 x 827.1		

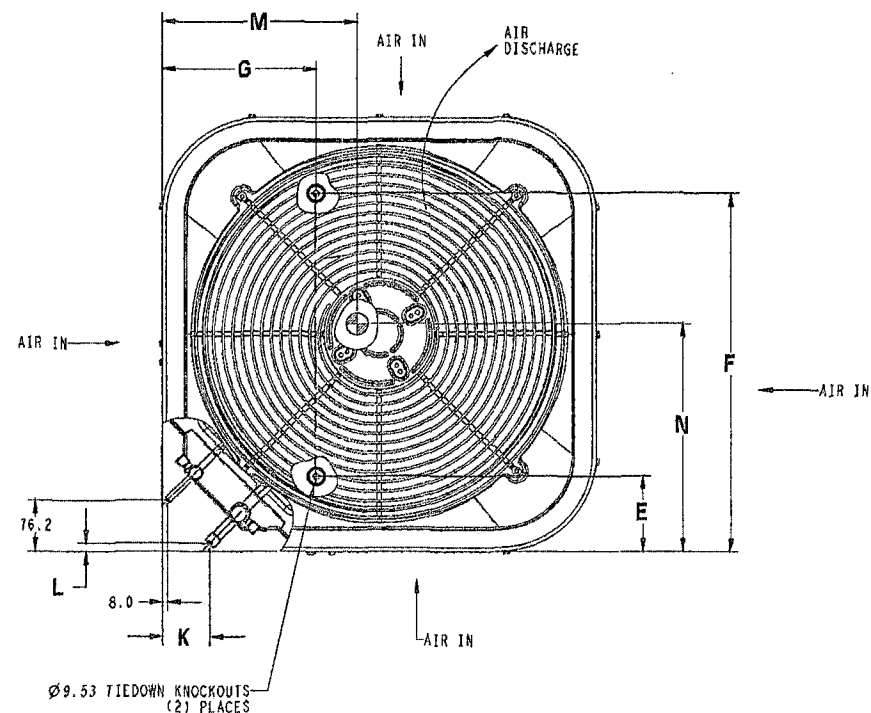
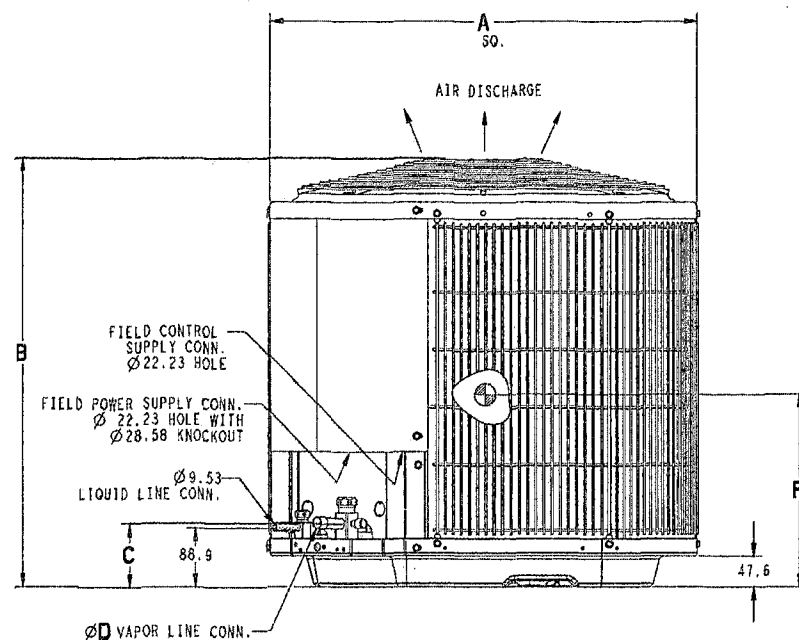
208-230-460

575

208/230-3-60

460-3-60

X = YES
O = NO



UNIT SIZE	MINIMUM MOUNTING PAD DIMENSIONS
18, 24, 30	596.9 X 596.9
36	660.4 X 660.4
42, 48, 60	800.1 X 800.1
-	889.0 X 889.0

TESTED AHRI COMBINATION RATINGS*

NOTE: Ratings contained in this document are subject to change at any time.

For AHRI ratings certificates, please refer to the AHRI directory www.ahridirectory.org

Additional ratings and system combinations can be accessed via the Bryant database at:

http://cactaxcredits.info/bryant-ratings/hp_ratings_srch.php

Equipment performance calculator can be accessed at: <http://rpmobbry.wrightsoft.com/>

Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
113AN(A,W)018-E	CAP**1814A**		17,200	10.9	13.0
113AN(A,W)024-D	CAP**2417A**		23,000	11.0	13.0
113AN(A,W)030-E	CAP**3017A**		27,200	10.8	13.0
113APA030****E	CAP**3014A** +TDR		27,200	10.8	13.0
113APA036****E	CAP**3619A** +TDR		33,800	10.9	13.0
113AN(A,W)042-C	CAP**4224A**		41,000	11.0	13.0
113AEA042****C	CAP**4224A** +TDR		41,000	11.0	13.0
113APA042****C	CAP**4224A** +TDR		41,000	11.0	13.0
113AN(A,W)048-E	CAP**4823A**		46,000	11.0	13.2
113APA048****E	CAP**4823A** +TDR		46,000	11.0	13.2
113AEA048****E	CAP**4823A** +TDR		46,000	11.0	13.2
113AEA060****G	CAP**6025A** +TDR		57,500	11.0	13.0
113APA060****G	CAP**6025A** +TDR		57,500	11.0	13.0

* AHRI = Air Conditioning, Heating & Refrigeration Institute

EERA — Energy Efficiency Ratio — 'A' conditions — 80°F (26.6°C) indoor db/67°F (19.4°C) indoor wb & 95°F (35°C) outdoor wb.

SEER — Seasonal Energy Efficiency Ratio

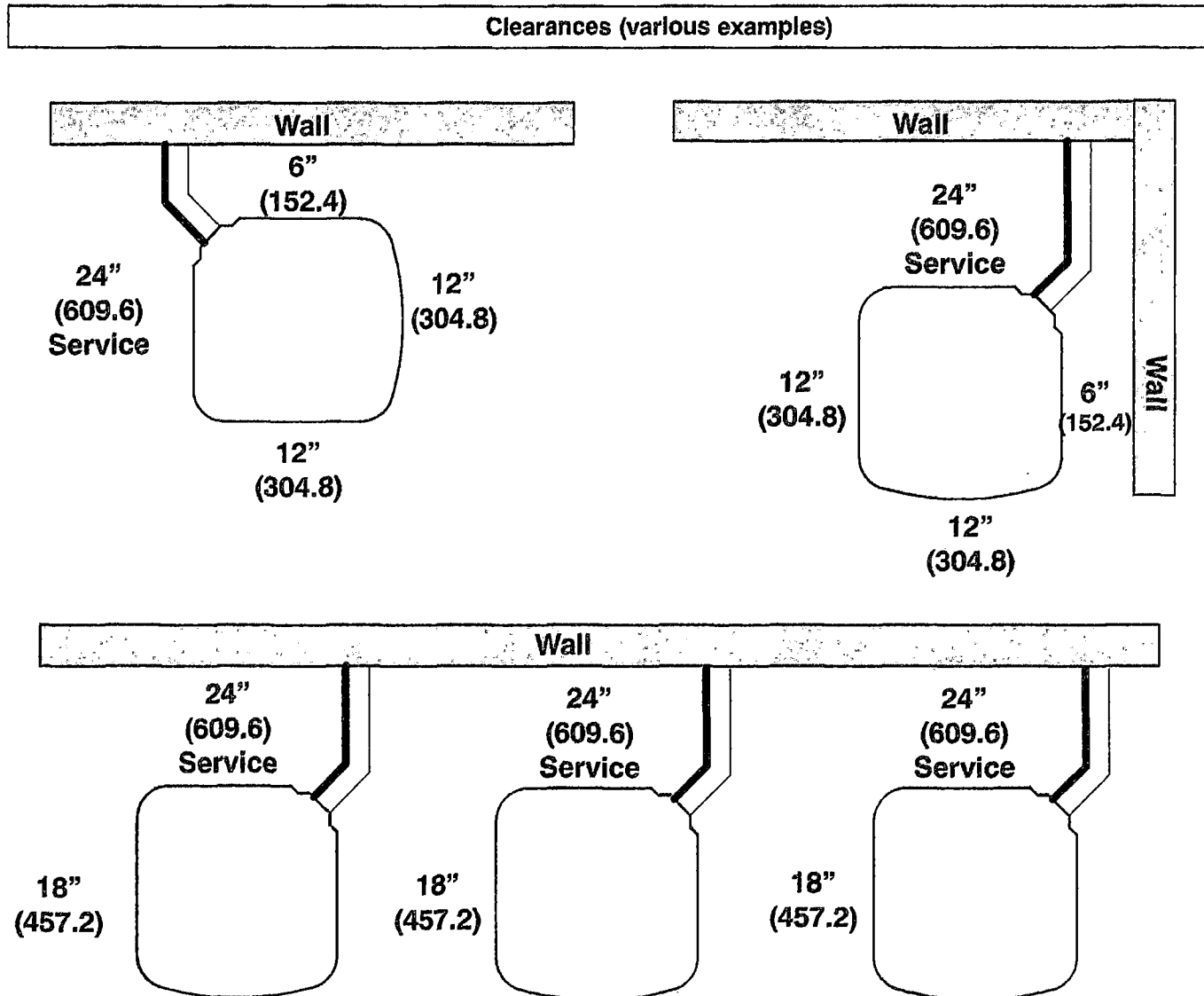
TDR — Time—Delay Relay. In most cases, only one method should be used to achieve TDR function. Using more than one method in a system may cause degradation in performance. Use either the accessory Time—Delay Relay, KAA1D0101TDR, or a furnace equipped with TDR. Most Bryant furnaces are equipped with TDR.

NOTES:

1. Ratings are net values reflecting the effects of circulating fan motor heat. Supplemental electric heat is not included.
2. Tested outdoor/indoor combinations have been tested in accordance with DOE test procedures for central air conditioners. Ratings for other combinations are determined under DOE computer simulation procedures.
3. Determine actual CFM values obtainable for your system by referring to fan performance data in fan coil or furnace coil literature.
4. Do not apply with capillary tube coils as performance and reliability are significantly affected.



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.

DETAILED COOLING CAPACITIES#

DETAILED COOLING CAPACITIES# CONTINUED

CONDENSER ENTERING AIR TEMPERATURES ° F (° C)																			
EVAPORATOR AIR		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
CFM	° F (° C)	Capacity MBtuh	Sens†	Total System KW**	Capacity MBtuh	Sens†	Total System KW**	Capacity MBtuh	Sens†	Total System KW**	Capacity MBtuh	Sens†	Total System KW**	Capacity MBtuh	Sens†	Total System KW**	Capacity MBtuh	Sens†	Total System KW**
113AN(AW)030-E Outdoor Section With CAP**3014A** Indoor Section																			
875	72 (22.2)	32.18	16.57	2.04	30.84	16.09	2.25	29.42	15.59	2.49	27.93	15.07	2.76	26.28	14.50	3.05	24.43	13.86	3.36
	67 (19.4)	29.70	20.70	2.03	28.44	20.20	2.25	27.08	19.68	2.49	25.67	19.13	2.75	24.11	18.54	3.04	22.39	17.88	3.35
	63 (17.2)†	27.91	20.13	2.03	26.69	19.62	2.25	25.39	19.07	2.49	24.02	18.50	2.75	22.52	17.89	3.04	20.88	17.21	3.35
	62 (16.7)	27.50	24.80	2.03	26.34	24.26	2.25	25.11	23.67	2.49	23.94	23.94	2.75	22.71	22.71	3.04	21.35	21.35	3.35
	57 (13.9)	27.10	27.10	2.03	26.12	26.12	2.25	25.05	26.05	2.49	23.94	23.94	2.75	22.71	22.71	3.04	21.35	21.35	3.35
1000	72 (22.2)	32.58	17.38	2.08	31.18	16.89	2.30	29.72	16.38	2.54	28.19	15.86	2.81	26.50	15.29	3.09	24.59	14.65	3.40
	67 (19.4)	30.08	22.03	2.08	28.79	21.53	2.30	27.40	21.00	2.54	25.96	20.45	2.80	24.36	19.85	3.09	22.60	19.17	3.40
	63 (17.2)†	28.31	21.38	2.08	27.06	20.87	2.30	26.72	20.31	2.53	24.32	19.74	2.80	22.78	19.11	3.09	21.11	18.42	3.40
	62 (16.7)	28.07	21.82	2.08	27.00	21.00	2.29	26.89	20.89	2.53	24.72	24.72	2.80	23.42	23.42	3.09	21.98	21.98	3.40
	57 (13.9)	28.04	28.04	2.08	27.01	27.01	2.29	26.89	26.89	2.53	24.72	24.72	2.80	23.42	23.42	3.09	21.98	21.98	3.40
1125	72 (22.2)	32.83	18.14	2.13	31.40	17.65	2.35	29.91	17.14	2.59	28.35	16.62	2.85	26.63	16.04	3.14	24.68	15.40	3.45
	67 (19.4)	30.36	23.30	2.13	29.03	22.80	2.34	27.62	22.26	2.58	26.15	21.70	2.85	24.54	21.08	3.14	22.76	20.38	3.45
	63 (17.2)†	28.59	22.57	2.12	27.32	22.05	2.34	26.95	21.49	2.58	24.53	20.90	2.85	22.98	20.26	3.13	21.29	19.53	3.44
	62 (16.7)	28.79	28.79	2.12	27.71	27.71	2.34	26.54	26.54	2.58	25.33	25.33	2.85	23.98	23.98	3.13	22.47	22.47	3.44
	57 (13.9)	28.79	28.79	2.12	27.71	27.71	2.34	26.55	26.55	2.58	25.33	25.33	2.85	23.98	23.98	3.13	22.47	22.47	3.44
CONDENSER ENTERING AIR TEMPERATURES ° F (° C)																			
EVAPORATOR AIR		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
CFM	° F (° C)	Capacity MBtuh	Sens†	Total System KW**	Capacity MBtuh	Sens†	Total System KW**	Capacity MBtuh	Sens†	Total System KW**	Capacity MBtuh	Sens†	Total System KW**	Capacity MBtuh	Sens†	Total System KW**	Capacity MBtuh	Sens†	Total System KW**
113AN(AW)030-E Outdoor Section With CAP**3014A** Indoor Section																			
1050	72 (22.2)	40.22	21.00	2.54	38.50	20.34	2.73	36.66	19.65	3.07	34.69	18.93	3.39	32.56	18.15	3.76	30.22	17.30	4.20
	67 (19.4)	36.61	25.73	2.51	35.00	25.05	2.76	33.29	24.35	3.04	31.46	23.60	3.36	29.49	22.81	3.74	27.34	21.95	4.18
	63 (17.2)†	34.02	24.88	2.48	32.50	24.20	2.73	30.89	23.49	3.02	29.17	22.73	3.35	27.32	21.94	3.73	25.29	21.07	4.19
	62 (16.7)	33.42	30.44	2.49	31.97	29.75	2.74	30.45	29.01	3.02	28.86	28.20	3.35	27.29	27.29	3.73	25.64	25.64	4.18
	57 (13.9)	32.55	32.55	2.48	31.38	31.38	2.73	30.12	30.12	3.02	28.77	28.77	3.35	27.29	27.29	3.73	25.65	25.65	4.18
1200	72 (22.2)	40.90	21.97	2.60	39.11	21.31	2.85	37.20	20.61	3.13	35.17	19.88	3.45	32.96	19.09	3.82	30.54	18.23	4.25
	67 (19.4)	37.25	27.30	2.57	35.57	26.61	2.82	33.80	25.90	3.10	31.91	25.15	3.42	29.88	24.35	3.80	27.67	22.48	4.24
	63 (17.2)†	34.63	26.36	2.54	33.04	25.66	2.79	31.38	24.94	3.08	29.60	24.18	3.41	27.69	23.37	3.79	25.61	22.48	4.25
	62 (16.7)	34.19	32.60	2.55	32.73	31.85	2.80	31.24	31.24	3.08	29.83	29.83	3.41	28.26	28.26	3.79	26.52	26.52	4.24
	57 (13.9)	33.87	33.87	2.55	32.61	32.61	2.80	31.27	31.27	3.08	29.83	29.83	3.41	28.26	28.26	3.79	26.52	26.52	4.24
1350	72 (22.2)	41.40	22.89	2.66	39.55	22.22	2.91	37.60	21.52	3.19	35.50	20.77	3.51	33.24	19.97	3.88	30.75	19.10	4.31
	67 (19.4)	37.72	28.79	2.63	36.00	28.11	2.88	34.19	27.39	3.16	32.26	26.63	3.48	30.19	25.81	3.86	27.93	24.92	4.30
	63 (17.2)†	35.09	27.77	2.60	33.47	27.07	2.85	31.76	26.34	3.14	29.94	25.57	3.47	27.99	24.73	3.85	25.88	23.82	4.30
	62 (16.7)	34.90	34.90	2.61	33.63	33.63	2.86	32.22	32.22	3.15	30.70	30.70	3.47	29.05	29.05	3.85	27.22	27.22	4.30
	57 (13.9)	34.96	34.96	2.61	33.64	33.64	2.86	32.23	32.23	3.15	30.70	30.70	3.47	29.05	29.05	3.85	27.22	27.22	4.29

See notes on page 16

DETAILED COOLING CAPACITIES# CONTINUED

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)				85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)	
CFM	EWB °F (°C)	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**
		Total	Sens†		Total	Sens†		Total	Sens†		Total	Sens†		Total	Sens†		Total	Sens†	
113AN(A,W)048-E Outdoor Section With CAP**4821A** Indoor Section																			
1400	72 (22.2)	54.48	26.42	3.32	52.18	25.62	3.67	49.73	24.77	4.05	47.13	23.89	4.48	44.34	22.96	4.94	41.30	21.95	5.45
	67 (19.4)	49.80	32.57	3.30	47.63	31.74	3.64	45.34	30.88	4.03	42.93	29.97	4.45	40.34	29.02	4.92	37.58	28.02	5.43
	63 (17.2)††	46.41	31.55	3.28	44.36	30.70	3.63	42.19	29.82	4.01	39.89	28.90	4.44	37.46	27.94	4.91	34.91	26.94	5.42
	62 (16.7)	45.58	38.68	3.28	43.61	37.81	3.62	41.55	36.89	4.01	39.45	39.21	4.43	37.47	37.47	4.91	35.38	35.38	5.42
	57 (13.9)	44.55	44.55	3.27	42.94	42.94	3.62	41.23	41.23	4.01	39.42	39.42	4.43	37.47	37.47	4.91	35.39	35.39	5.42
1600	72 (22.2)	55.34	27.67	3.40	52.95	26.86	3.75	50.42	26.01	4.13	47.73	25.12	4.56	44.84	24.17	5.02	41.69	23.15	5.52
	67 (19.4)	50.62	34.60	3.38	48.38	33.76	3.72	46.00	32.88	4.11	43.51	31.98	4.53	40.84	31.01	5.00	38.00	29.98	5.51
	63 (17.2)††	47.22	33.46	3.36	45.08	32.60	3.71	42.83	31.71	4.09	40.47	30.78	4.52	37.96	29.80	4.99	35.33	28.77	5.49
	62 (16.7)	46.58	41.42	3.36	44.61	44.23	3.70	42.74	42.74	4.09	40.82	40.82	4.52	38.75	38.75	4.99	36.51	36.51	5.50
	57 (13.9)	46.27	46.27	3.36	44.56	44.56	3.70	42.75	42.75	4.09	40.82	40.82	4.52	38.75	38.75	4.99	36.52	36.52	5.50
1800	72 (22.2)	55.96	28.85	3.48	53.51	28.03	3.83	50.90	27.17	4.21	48.15	26.28	4.64	45.18	25.32	5.10	41.94	24.28	5.60
	67 (19.4)	51.21	36.53	3.46	48.91	35.69	3.80	46.48	34.81	4.19	43.93	33.88	4.61	41.20	32.89	5.08	38.30	31.83	5.58
	63 (17.2)††	47.80	35.26	3.44	45.61	34.40	3.79	43.31	33.50	4.17	40.89	32.56	4.60	38.33	31.55	5.06	35.64	30.47	5.57
	62 (16.7)	47.66	47.66	3.44	45.87	45.87	3.79	43.97	43.97	4.17	41.94	41.94	4.60	39.77	39.77	5.07	37.41	37.41	5.58
	57 (13.9)	47.67	47.67	3.44	45.88	45.88	3.79	43.97	43.97	4.17	41.95	41.95	4.60	39.77	39.77	5.07	37.41	37.41	5.58

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES ° F (° C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
CFM	EWB ° F (° C)	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**
		Total	Sens†		Total	Sens†		Total	Sens†		Total	Sens†		Total	Sens†		Total	Sens†	
113AN(A,W)060—G Outdoor Section With CAP**6024A** Indoor Section																			
1750	72 (22.2)	68.71	34.82	4.37	65.76	33.74	4.81	62.59	32.60	5.30	59.21	31.39	5.84	55.54	30.09	6.42	51.41	28.66	7.05
	67 (19.4)	63.16	43.00	4.29	60.43	41.90	4.74	57.50	40.73	5.23	54.39	39.50	5.77	51.03	38.20	6.36	47.32	36.77	6.99
	63 (17.2)††	59.15	41.80	4.24	56.59	40.69	4.68	53.84	39.50	5.18	50.92	38.26	5.72	47.79	36.96	6.31	44.36	35.54	6.95
	62 (16.7)	58.14	51.13	4.23	55.65	49.99	4.67	53.01	48.77	5.16	50.27	47.45	5.71	47.55	47.55	6.31	44.70	44.70	6.96
	57 (13.9)	56.63	56.63	4.21	54.60	54.60	4.66	52.42	52.42	5.16	50.09	50.09	5.71	47.55	47.55	6.31	44.71	44.71	6.96
2000	72 (22.2)	69.71	36.45	4.48	66.67	35.37	4.92	63.38	34.20	5.41	59.88	32.98	5.95	56.07	31.67	6.53	51.80	30.21	7.15
	67 (19.4)	64.15	45.67	4.40	61.31	44.55	4.85	58.27	43.36	5.34	55.05	42.13	5.87	51.58	40.80	6.46	47.74	39.34	7.10
	63 (17.2)††	60.14	44.30	4.35	57.47	43.18	4.79	54.61	41.98	5.28	51.60	40.73	5.82	48.36	39.39	6.42	44.82	37.93	7.06
	62 (16.7)	59.33	54.75	4.34	56.80	53.54	4.78	54.23	54.23	5.28	51.77	51.77	5.83	49.05	49.05	6.42	45.99	45.99	7.07
	57 (13.9)	58.75	58.75	4.33	56.59	56.59	4.78	54.26	54.26	5.28	51.77	51.77	5.83	49.05	49.05	6.42	46.00	46.00	7.07
2250	72 (22.2)	70.44	37.99	4.59	67.31	36.90	5.03	63.93	35.73	5.52	60.33	34.49	6.05	56.41	33.16	6.63	52.03	31.69	7.25
	67 (19.4)	64.85	48.20	4.51	61.94	47.09	4.95	58.82	45.89	5.44	55.52	44.63	5.98	51.96	43.27	6.56	48.04	41.75	7.20
	63 (17.2)††	60.84	46.68	4.45	58.11	45.56	4.90	55.17	44.34	5.39	52.08	43.07	5.93	48.77	41.69	6.52	45.14	40.17	7.16
	62 (16.7)	60.44	60.44	4.45	58.18	58.18	4.90	55.72	55.72	5.40	53.10	53.10	5.94	50.23	50.23	6.54	46.99	46.99	7.18
	57 (13.9)	60.47	60.47	4.45	58.19	58.19	4.90	55.73	55.73	5.40	53.10	53.10	5.94	50.23	50.23	6.54	47.00	47.00	7.18

NOTES:

† Total and sensible capacities are net capacities. Blower motor heat has been subtracted.

‡ Sensible capacities shown are based on 80°F (27°C) entering air at the indoor coil. For sensible capacities at other than 80°F (27°C), deduct 835 Btuh (245 kW) per 1000 CFM (480 L/S) of indoor coil air for each degree below 80°F (27°C), or add 835 Btuh (245 kW) per 1000 CFM (480 L/S) of indoor coil air per degree above 80°F (27°C).

Detailed cooling capacities are based on indoor and outdoor unit at the same elevation per AHRI standard 210/240-2008. If additional tubing length and/or indoor unit is located above outdoor unit, a slight variation in capacity may occur.

** System kw is total of indoor and outdoor unit kilowatts.

†† At TVA rating indoor condition (75°F edb/63°F ewb). All other indoor air temperatures are at 80°F edb.

NOTE: When the required data falls between the published data, interpolation may be performed. Extrapolation is not an acceptable practice.

EWB — Entering Wet Bulb

NOTE: When the required data fall between the published data, interpolation may be performed. Extrapolation is not an acceptable practice.

CONDENSER ONLY RATINGS*

SST ° F (° C)		CONDENSER ENTERING AIR TEMPERATURES ° F (° C)							
		55 (12.78)	65 (18.33)	75 (23.89)	85 (29.44)	95 (35.0)	105 (40.56)	115 (46.11)	125 (51.67)
113AN(A)W018									
30 (-1.11)	TCG	16.10	15.20	14.20	13.30	12.30	11.30	10.20	9.10
	SDT	70.80	80.40	89.90	99.50	109.10	118.80	128.60	138.50
	KW	0.83	0.95	1.09	1.24	1.40	1.57	1.76	1.95
35 (1.67)	TCG	17.70	16.70	15.70	14.70	13.70	12.60	11.50	10.30
	SDT	71.90	81.40	90.90	100.40	109.90	119.60	129.40	139.10
	KW	0.83	0.95	1.09	1.24	1.40	1.58	1.77	1.97
40 (4.44)	TCG	19.50	18.40	17.40	16.20	15.10	14.00	12.80	11.50
	SDT	73.00	82.50	91.90	101.30	110.80	120.40	130.10	139.70
	KW	0.83	0.95	1.09	1.23	1.40	1.58	1.77	1.98
45 (7.22)	TCG	21.30	20.20	19.00	17.90	16.70	15.40	14.20	12.80
	SDT	74.20	83.60	93.00	102.30	111.70	121.20	130.70	140.30
	KW	0.83	0.95	1.08	1.23	1.40	1.58	1.78	1.99
50 (10.0)	TCG	23.30	22.00	20.60	19.50	18.20	16.90	15.60	14.20
	SDT	75.40	84.80	94.10	103.40	112.60	122.00	131.40	140.90
	KW	0.82	0.95	1.08	1.23	1.40	1.58	1.78	1.99
55 (12.78)	TCG	25.20	23.90	22.50	21.20	19.80	18.50	17.00	15.50
	SDT	76.70	86.00	95.20	104.40	113.60	122.90	132.20	141.50
	KW	0.82	0.94	1.08	1.23	1.39	1.58	1.78	1.99
113AN(A)W024									
30 (-1.11)	TCG	21.30	20.10	18.90	17.70	16.50	15.20	14.00	12.60
	SDT	73.00	82.40	91.80	101.20	110.60	120.20	129.80	139.40
	KW	1.06	1.21	1.37	1.56	1.77	1.99	2.24	2.51
35 (1.67)	TCG	23.40	22.10	20.90	19.60	18.20	16.90	15.50	14.10
	SDT	74.40	83.60	93.00	102.30	111.70	121.10	130.60	140.20
	KW	1.06	1.21	1.38	1.57	1.77	2.00	2.25	2.52
40 (4.44)	TCG	25.60	24.20	22.90	21.50	20.00	18.60	17.10	15.60
	SDT	75.80	85.00	94.20	103.50	112.70	122.10	131.50	140.90
	KW	1.07	1.22	1.39	1.58	1.78	2.01	2.26	2.53
45 (7.22)	TCG	27.90	26.40	24.90	23.40	21.90	20.40	18.80	17.10
	SDT	77.30	86.30	95.50	104.70	113.80	123.10	132.30	141.60
	KW	1.08	1.23	1.40	1.58	1.79	2.02	2.27	2.54
50 (10.0)	TCG	30.20	28.60	27.00	25.40	23.70	22.10	20.40	18.60
	SDT	78.80	87.80	96.80	105.90	114.90	124.10	133.30	142.40
	KW	1.09	1.24	1.40	1.59	1.80	2.03	2.28	2.55
55 (12.78)	TCG	32.60	30.80	29.10	27.30	25.60	23.90	22.10	20.20
	SDT	80.30	89.20	98.20	107.10	116.10	125.20	134.20	143.10
	KW	1.09	1.25	1.41	1.60	1.81	2.03	2.28	2.55
113AN(A)W030									
30 (-1.11)	TCG	25.40	24.00	22.60	21.10	19.60	18.00	16.40	14.60
	SDT	74.40	83.60	92.90	102.10	111.40	120.80	130.20	139.60
	KW	1.35	1.52	1.70	1.91	2.13	2.37	2.63	2.89
35 (1.67)	TCG	28.00	26.50	24.90	23.40	21.70	20.00	18.30	16.40
	SDT	75.90	85.00	94.20	103.40	112.60	121.90	131.20	140.50
	KW	1.35	1.52	1.71	1.92	2.15	2.39	2.65	2.92
40 (4.44)	TCG	30.70	29.10	27.40	25.70	24.00	22.20	20.30	18.40
	SDT	77.40	86.50	95.60	104.70	113.80	123.00	132.20	141.40
	KW	1.35	1.53	1.72	1.93	2.15	2.40	2.67	2.95
45 (7.22)	TCG	33.50	31.80	30.00	28.20	26.30	24.40	22.40	20.30
	SDT	79.00	88.00	97.00	106.10	115.10	124.20	133.30	142.30
	KW	1.36	1.53	1.72	1.93	2.16	2.42	2.69	2.97
50 (10.0)	TCG	36.50	34.60	32.70	30.70	28.70	26.70	24.60	22.50
	SDT	80.70	89.70	98.50	107.50	116.40	125.40	134.30	143.20
	KW	1.36	1.54	1.73	1.94	2.17	2.43	2.70	2.99
55 (12.78)	TCG	39.50	37.40	35.30	33.20	31.10	29.00	26.70	24.30
	SDT	82.40	91.30	100.10	108.90	117.80	126.60	135.40	144.20
	KW	1.37	1.54	1.74	1.95	2.18	2.44	2.71	3.00
113AN(A)W036									
30 (-1.11)	TCG	30.30	28.80	27.20	25.50	23.80	22.00	20.00	18.00
	SDT	73.20	82.20	91.40	100.60	109.90	119.10	128.40	137.80
	KW	1.65	1.85	2.07	2.30	2.57	2.88	3.25	3.68
35 (1.67)	TCG	33.50	31.80	30.10	28.30	26.40	24.40	22.30	20.10
	SDT	74.80	83.80	92.80	102.00	111.10	120.30	129.50	138.70
	KW	1.66	1.87	2.08	2.32	2.59	2.90	3.26	3.69
40 (4.44)	TCG	37.00	35.10	33.20	31.20	29.20	27.00	24.80	22.40
	SDT	76.60	85.40	94.40	103.40	112.40	121.50	130.60	139.70
	KW	1.68	1.89	2.10	2.34	2.61	2.92	3.28	3.70
45 (7.22)	TCG	40.70	38.60	36.50	34.30	32.10	29.80	27.40	24.80
	SDT	78.50	87.20	96.00	104.90	113.80	122.80	131.80	140.80
	KW	1.70	1.91	2.13	2.37	2.63	2.94	3.30	3.72
50 (10.0)	TCG	44.60	42.30	40.00	37.70	35.30	32.80	30.20	27.40
	SDT	80.50	89.10	97.80	106.50	115.30	124.20	133.00	141.90
	KW	1.73	1.94	2.16	2.40	2.66	2.97	3.32	3.73
55 (12.78)	TCG	48.80	46.30	43.80	41.30	38.70	36.00	33.20	30.20
	SDT	82.60	91.10	99.60	108.20	116.90	125.60	134.30	143.00
	KW	1.77	1.97	2.19	2.43	2.70	3.00	3.35	3.76



CONDENSER ONLY RATINGS* CONTINUED

SST ° F (° C)		CONDENSER ENTERING AIR TEMPERATURES ° F (° C)							
		55 (12.78)	65 (18.33)	75 (23.89)	85 (29.44)	95 (35.0)	105 (40.56)	115 (46.11)	125 (51.67)
113AN(A,W)042									
30 (-1.11)	TCG	38.00	36.00	33.90	31.90	29.70	27.60	25.30	22.90
	SDT	73.20	82.30	91.40	100.60	109.80	119.10	128.40	137.70
	KW	1.95	2.20	2.48	2.80	3.14	3.53	3.95	4.41
35 (1.67)	TCG	41.90	39.70	37.40	35.10	32.80	30.50	28.00	25.50
	SDT	74.80	83.70	92.80	101.90	111.00	120.20	129.40	138.60
	KW	1.97	2.22	2.50	2.81	3.16	3.54	3.97	4.43
40 (4.44)	TCG	46.00	43.60	41.10	38.70	36.20	33.60	30.90	28.10
	SDT	76.40	85.20	94.20	103.20	112.20	121.30	130.40	139.50
	KW	1.98	2.23	2.52	2.83	3.18	3.56	3.98	4.44
45 (7.22)	TCG	50.30	47.70	45.10	42.40	39.60	36.80	33.90	30.90
	SDT	78.10	86.90	95.70	104.60	113.50	122.50	131.40	140.40
	KW	2.01	2.26	2.54	2.85	3.19	3.58	4.00	4.45
50 (10.0)	TCG	54.90	52.10	49.20	46.20	43.20	40.20	37.00	33.60
	SDT	80.00	88.60	97.20	106.00	114.80	123.70	132.50	141.30
	KW	2.03	2.28	2.56	2.87	3.21	3.60	4.01	4.47
55 (12.78)	TCG	59.70	56.60	53.40	50.20	46.90	43.50	40.10	36.40
	SDT	81.90	90.30	98.90	107.50	116.20	124.90	133.60	142.20
	KW	2.06	2.30	2.58	2.89	3.23	3.62	4.03	4.48
113AN(A,W)048									
30 (-1.11)	TCG	41.10	38.90	36.70	34.40	32.10	29.70	27.20	24.50
	SDT	73.80	83.00	92.30	101.60	111.00	120.40	129.70	139.10
	KW	2.19	2.46	2.76	3.10	3.47	3.87	4.30	4.76
35 (1.67)	TCG	45.20	42.80	40.50	38.00	35.50	32.90	30.20	27.40
	SDT	75.30	84.40	93.70	102.90	112.20	121.50	130.80	140.00
	KW	2.22	2.49	2.79	3.13	3.50	3.90	4.34	4.81
40 (4.44)	TCG	49.60	47.10	44.50	41.90	39.20	36.40	33.50	30.40
	SDT	76.90	86.00	95.10	104.30	113.40	122.60	131.80	141.00
	KW	2.24	2.51	2.82	3.15	3.53	3.93	4.38	4.85
45 (7.22)	TCG	54.30	51.60	48.80	46.00	43.10	40.10	36.90	33.60
	SDT	78.50	87.50	96.60	105.70	114.70	123.80	132.90	142.00
	KW	2.27	2.54	2.85	3.19	3.56	3.97	4.41	4.89
50 (10.0)	TCG	59.30	56.40	53.40	50.30	47.10	43.90	40.50	36.90
	SDT	80.20	89.20	98.10	107.10	116.10	125.10	134.10	143.00
	KW	2.30	2.58	2.88	3.22	3.59	4.00	4.45	4.92
55 (12.78)	TCG	64.60	61.40	58.10	54.80	51.40	47.90	44.20	40.30
	SDT	82.10	91.00	99.80	108.70	117.50	126.40	135.20	144.00
	KW	2.34	2.61	2.92	3.25	3.63	4.04	4.48	4.96
113AN(A,W)060									
30 (-1.11)	TCG	54.90	51.90	49.00	46.00	42.90	39.80	36.50	33.10
	SDT	77.60	86.40	95.30	104.20	113.20	122.20	131.20	140.20
	KW	2.73	3.07	3.45	3.88	4.34	4.85	5.41	6.01
35 (1.67)	TCG	60.30	57.10	53.90	50.70	47.30	43.90	40.30	36.50
	SDT	79.50	88.20	97.00	105.80	114.70	123.60	132.50	141.30
	KW	2.79	3.13	3.51	3.94	4.40	4.92	5.48	6.08
40 (4.44)	TCG	66.00	62.60	59.10	55.50	51.90	48.20	44.30	40.10
	SDT	81.60	90.20	98.80	107.50	116.30	125.00	133.80	142.50
	KW	2.86	3.20	3.58	4.00	4.47	4.98	5.54	6.15
45 (7.22)	TCG	72.10	68.30	64.50	60.70	56.70	52.60	48.40	43.80
	SDT	83.80	92.20	100.70	109.30	117.90	126.50	135.10	143.60
	KW	2.93	3.27	3.65	4.08	4.54	5.06	5.61	6.21
50 (10.0)	TCG	78.50	74.40	70.20	66.00	61.60	57.20	52.50	47.50
	SDT	86.10	94.40	102.70	111.20	119.60	128.10	136.50	144.80
	KW	3.01	3.35	3.73	4.15	4.62	5.13	5.68	6.27
55 (12.78)	TCG	85.10	80.60	76.10	71.40	66.70	61.80	56.70	51.20
	SDT	88.60	96.60	104.80	113.10	121.40	129.70	137.90	146.00
	KW	3.09	3.44	3.81	4.24	4.70	5.21	5.75	6.34

* AHRI listing applies only to systems shown in Combination Ratings table.

KW - Outdoor Unit Kilowatts Only.

SDT - Saturated Temperature Leaving Compressor (°F/°C)

SST - Saturated Temperature Entering Compressor (°F/°C)

TCG - Gross Cooling Capacity (1000 Btu/h)

GUIDE SPECIFICATIONS

GENERAL

System Description

Outdoor-mounted, air-cooled, split-system air conditioner unit suitable for ground or rooftop installation. Unit consists of a hermetic compressor, an air-cooled coil, propeller-type condenser fan, and a control box. Unit will discharge supply air upward as shown on contract drawings. Unit will be used in a refrigeration circuit to match up to a packaged fan coil or coil unit.

Quality Assurance

- Unit will be rated in accordance with the latest edition of AHRI Standard 210.
- Unit will be certified for capacity and efficiency, and listed in the latest AHRI directory.
- Unit construction will comply with latest edition of ANSI/ASHRAE and with NEC.
- Unit will be constructed in accordance with UL standards and will carry the UL label of approval. Unit will have c-UL-us approval.
- Unit cabinet will be capable of withstanding Federal Test Method Standard No. 141 (Method 6061) 500-hr salt spray test.
- Air-cooled condenser coils will be leak tested at 150 psig and pressure tested at 450 psig.
- Unit constructed in ISO9001 approved facility.

Delivery, Storage, and Handling

- Unit will be shipped as single package only and is stored and handled per unit manufacturer's recommendations.

Warranty (for inclusion by specifying engineer)

- U.S. and Canada only.

PRODUCTS

Equipment

Factory assembled, single piece, air-cooled air conditioner unit. Contained within the unit enclosure is all factory wiring, piping, controls, compressor, refrigerant charge Puron® (R-410A), and special features required prior to field start-up.

Unit Cabinet

- Unit cabinet will be constructed of galvanized steel, bonderized, and coated with a powder coat paint.
- 3 phase equipment available with dense grille only.
- Single phase equipment available with wide (W) or dense (A) grille option.

AIR-COOLED, SPLIT-SYSTEM AIR CONDITIONER

113A

1-1/2 TO 5 NOMINAL TONS

Fans

- Condenser fan will be direct-drive propeller type, discharging air upward.
- Condenser fan motors will be totally enclosed, 1-phase type with class B insulation and permanently lubricated bearings. Shafts will be corrosion resistant.
- Fan blades will be statically and dynamically balanced.
- Condenser fan openings will be equipped with coated steel wire safety guards.

Compressor

- Compressor will be hermetically sealed.
- Compressor will be mounted on rubber vibration isolators.

Condenser Coil

- Condenser coil will be air cooled.
- Coil will be constructed of aluminum fins mechanically bonded to copper tubes which are then cleaned, dehydrated, and sealed.

Refrigeration Components

- Refrigeration circuit components will include liquid-line shutoff valve with sweat connections, vapor-line shutoff valve with sweat connections, system charge of Puron® (R-410A) refrigerant, and compressor oil.
- Unit will be equipped with filter drier for Puron refrigerant.

Operating Characteristics

- The capacity of the unit will meet or exceed _____ Btuh at a suction temperature of _____ °F/°C. The power consumption at full load will not exceed _____ kW.
- Combination of the unit and the evaporator or fan coil unit will have a total net cooling capacity of _____ Btuh or greater at conditions of _____ CFM entering air temperature at the evaporator at _____ °F/°C wet bulb and _____ °F/°C dry bulb, and air entering the unit at _____ °F/°C.
- The system will have a SEER of _____ Btuh/watt or greater at DOE conditions.

Electrical Requirements

- Nominal unit electrical characteristics will be _____ v, single phase, 60 hz. The unit will be capable of satisfactory operation within voltage limits of _____ v to _____ v.
- Nominal unit electrical characteristics will be _____ v, three phase, 60 hz. The unit will be capable of satisfactory operation within voltage limits of _____ v to _____ v.
- Unit electrical power will be single point connection.
- Control circuit will be 24v.

Special Features

- Refer to section of this literature identifying accessories and descriptions for specific features and available enhancements.



SYSTEM DESIGN SUMMARY

1. Intended for outdoor installation with free air inlet and outlet. Outdoor fan external static pressure available is less than 0.01-in. wc.
2. Minimum outdoor operating air temperature without low-ambient operation accessory is 55°F (12.8°C).
3. Maximum outdoor operating air temperature is 125°F (51.7°C).
4. For reliable operation, unit should be level in all horizontal planes.
5. For interconnecting refrigerant tube lengths greater than 80 ft (23.4 m) and/or 35 ft (10.7 m) vertical differential, consult Residential Piping and Longline Guideline and Service Manual available from equipment distributor.
6. If any refrigerant tubing is buried, provide a 6 in. (152.4 mm) vertical rise to the valve connections at the unit. Refrigerant tubing lengths up to 36 in. (914.4 mm) may be buried without further consideration. Do not bury refrigerant lines longer than 36 in. (914.4 mm).
7. Use only copper wire for electric connection at unit. Aluminum and clad aluminum are not acceptable for the type of connector provided.
8. Do not apply capillary tube indoor coils to these units.
9. Factory-supplied filter drier must be installed.