

**BID SPECIFICATIONS AND CONTRACT DOCUMENTS**

**Supply and Installation of Ductless Heat Pump/Air Conditioning Units**

**ALLEN TOWNSHIP  
NORTHAMPTON COUNTY, PENNSYLVANIA**

**APRIL 2016**



**ALLEN TOWNSHIP  
4714 INDIAN TRAIL RD  
NORTHAMPTON, PA 18067**

## INVITATION TO BID

The Board of Supervisors of the Allen Township, 4714 Indian Trail Road, Northampton, PA 18067, will receive sealed bids for: Supply and Installation of Ductless Heat Pump/Air Conditioning Units (Meeting Room, Front Office, Back Office) on or before 1:00 PM prevailing time, Monday, April 25<sup>th</sup>, 2016, to be publicly opened and read by the Township Manager, at 1:30 PM prevailing time.

In addition, bid results will be publicly read at the Board of Supervisors Meeting at their meeting scheduled for Tuesday, April 26, at 7:00 P.M. prevailing time.

All bids must be accompanied by bid bond in the amount of not less than 10% of bid. The successful bidder shall provide the Township with a performance bond in the amount of 10% of the estimated amount of the contract within twenty (20) days after notification of award.

Bid specifications may be obtained at the Township Office at the aforementioned location during regular business hours or by accessing the Township's website ([www.allentownship.org](http://www.allentownship.org)).

The Township reserves the right to reject any and all bids or take whatever steps in its sole discretion it deems necessary to best serve the citizens and taxpayers of the municipality.

Ilene Eckhart, Township Manager  
Allen Township  
4714 Indian Trail Road  
Northampton PA 18067

**BID FORM**

Project Name/Identification: Supply and Installation of  
Ductless Heat Pump/Air Conditioning Units

Name of Owner: Allen Township Board of Supervisors  
4714 Indian Trail Rd, Northampton PA 18067

Name of Bidder: \_\_\_\_\_  
\_\_\_\_\_

1. The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with OWNER in the form included in the Contract Documents to perform and furnish all Work as specified or indicated in the Contract Documents for the Bid price and within the Bid times indicated in this Bid and in accordance with all other terms and conditions of the Contract Document.

2. Bidder accepts all of the terms and conditions of the Advertisement or Invitation to Bid and Instructions to Bidders, including without limitation those dealing with the disposition of Bid Security. This Bid will remain subject to acceptance for 60 days after the day of Bid opening or for such longer period of time that Bidder may agree to in writing upon request of OWNER. Bidder will sign and deliver the required number of counterparts of the Agreement with the Bonds and other documents required by the bidding requirements within 10 days after the date of the OWNER'S Notice of Award.

3. In submitting this Bid, Bidder represents, as more fully set forth in the Agreement, that:

A. Bidder has examined and carefully studied the Bidding Documents and the following Addenda receipt of all which is hereby acknowledged:

Addendum No.	Addendum Date
_____	_____
_____	_____
_____	_____

B. Bidder has visited the site and become familiar with and is satisfied as to the general, local and site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and is satisfied as to all federal, state and local laws and

regulations that may affect cost, progress, and performance of the Work.

- D. Bidder has carefully studied all: (1) reports of explorations and tests of all structural, mechanical, electrical and subsurface conditions at or contiguous to the site and all drawings of physical conditions in or relating to existing structure, surface or subsurface structures at or contiguous to the site (except underground facilities), and (2) reports and drawings of a hazardous environmental condition, if any. Specifically, Bidder shall supply verification of capacity of existing electrical service and panel or provide cost estimate for upgrade to accommodate proposed Ductless Heat Pump/Air Conditioning Units to the satisfaction of the TOWNSHIP REPRESENTATIVE.
- E. Bidder has obtained and carefully studied (or assumes responsibility for having done so) all such additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface and underground facilities) at or contiguous to the site or otherwise which may affect cost, progress, performance, and furnishing of the Work or which may relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder and safety precautions and programs incidental thereto.
- F. Bidder does not consider that any additional examinations, investigations, explorations, tests, studies or data are necessary for the determination of this Bid for performance and furnishing of the Work in accordance with the times, price and other terms and conditions of the Contract Documents.
- G. Bidder is aware of the general nature of the Work to be performed by OWNER and others at the site that relates to Work for which this Bid is submitted as indicated in the Contract Documents.
- H. Bidder has correlated the information known to Bidder, information and observations obtained from visits to the site, reports and Drawings identified in the Contract Documents and all additional examinations, investigations, explorations, tests, studies and data with the Contract Documents.
- I. Bidder has given TOWNSHIP REPRESENTATIVE written notice of all conflicts, errors, ambiguities or discrepancies that Bidder has discovered in the Contract Documents and the written resolution thereof by TOWNSHIP REPRESENTATIVE is acceptable to Bidder.
- J. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work for which this Bid is submitted.

4.01 Bidder further represents that this Bid is genuine and not made in the interest of or on the behalf of any undisclosed individual or entity and is not submitted in conformance with any agreement or rules of any group, association, organization or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham

Bid; Bidder has not solicited or induced any individual or entity to refrain from bidding; and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over OWNER.

Bidder will complete the Work in accordance with the Contract Documents for the following selected Contract and price(s):

**UNIT PRICE WORK ITEMS**

**Base Bid:**

Item No.	Description	Unit	Unit Price	Estimated Quantity	Total Price
1	<b>MEETING ROOM (North Side of Building)</b>				
	Component #1MR Heat Pump Outdoor Unit (Specification Sub-Package 1A	EA		1	
	Components #2MR Heat Pump Indoor Units (Specification Sub-Package 1B	EA		2	
2	<b>FRONT OFFICE (West Side of Building)</b>				
	Component #1FO Heat Pump Outdoor Unit (Specification Sub-Package 2A	EA		1	
	Component #2FO Heat Pump Indoor Unit (Specification Sub-Package 2B	EA		1	
	Component #3FO Heat Pump Indoor Unit (Specification Sub-Package 2C	EA		1	
3	<b>BACK OFFICE (East Side of Building)</b>				
	Component #1BO Cooling Only Outdoor Unit (Specification Sub-Package 3A	EA		1	
	Component #2BO Wall Hung Indoor Unit (Cooling) (Specification Sub-Package 3B	EA		1	
4	Supply and installation of <u>ALL</u> associated air handler, refrigerant lines, condensate piping, installation of reinforced concrete pads, outdoor unit safety disconnect per unit, wiring from indoor units to outdoor units, wiring to outdoor units from main service electrical system service panel and breakers, crane equipment/operator for any roof siting required for project of all ITEM NO. 1, 2 and 3 of the above described items.	EA		1	
5	Programmable Commercial Thermostat Controllers, compatible with ITEM NO. 1, 2 and 3 Components listed above (See All Specification Sub-Packages)	EA		5	

Item No.	Description	Unit	Unit Price	Estimated Quantity	Total Price
6	Electrical Panel Capacity Upgrades (if applicable, pursuant to Section 3.D)	EA.			
	<b>TOTAL BID</b>				
Total Amount of Base Bid					(figures)
_____ Dollars and _____ Cents (written)					

- 5.01 Unit prices have been computed in accordance with paragraph 11.03.B of the Standard General Conditions.
- 5.02 Bidder acknowledges that estimated quantities are not guaranteed and are solely for the purpose of comparison of Bids, and final payment for unit price Bid items will be based on actual quantities provided, as determined in the Contract Documents.
- 5.03 Bidder acknowledges that the owner reserves the right to award some of the bid items and not all.
- 6.01 Bidder agrees that the Work will be complete and ready for final payment in accordance with paragraph 14.07 of the General Conditions on or before the dates or within the number of calendar days from issuance.
- 6.02 Bidder accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the Work within 120 calendar days as specified in the Agreement.
- 7.01 The following documents are attached to and made a condition of this Bid:
- A. Required Bid Security in the form of \_\_\_\_\_.
  - B. A tabulation of subcontractors, suppliers and other individuals and entities required to be identified in this Bid.
  - C. Required Bidder Qualifications Statement with supporting data.
  - D. Non- Collusion Affidavit
- 8.01 The terms used in this Bid are defined in the Instructions to Bidders and Standard General Conditions.
- 9.01 Communications concerning this Bid shall be addressed to the address of Bidder indicated below or the following address:

SUBMITTED on \_\_\_\_\_, 20\_\_.

If Bidder is:

**An Individual**

By \_\_\_\_\_ (SEAL)  
(Individual's Name)

doing business as \_\_\_\_\_

Business Address: \_\_\_\_\_  
\_\_\_\_\_

Phone No.: \_\_\_\_\_

**A Partnership**

\_\_\_\_\_ (Name of Partnership)

Witness:

\_\_\_\_\_ By: \_\_\_\_\_  
Partner

\_\_\_\_\_ By: \_\_\_\_\_  
Partner

\_\_\_\_\_ By: \_\_\_\_\_  
Partner

\*All Partners must execute this Bid

Address of Partnership Bidder:

\_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone No: \_\_\_\_\_

**A Corporation**

\_\_\_\_\_ (Name of Corporation)

ATTEST:

By: \_\_\_\_\_  
(Assistant) Secretary

By: \_\_\_\_\_  
(Vice) President

[CORPORATE SEAL]

(or if appropriate)



\_\_\_\_\_

(Name of Corporation)

Witness:

\_\_\_\_\_

\*\*By: \_\_\_\_\_

(Authorized Representative)

\*\* Attach appropriate corporate resolution evidencing authority to execute the Bid on behalf of the corporation.

Address of Corporation Bidder: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone No: \_\_\_\_\_

**A Joint Venture**

By \_\_\_\_\_ (SEAL)

(Name)

\_\_\_\_\_

(Address)

By \_\_\_\_\_ (SEAL)

(Name)

\_\_\_\_\_

(Address)

Phone Number and Address for Receipt of Official Communications.

\_\_\_\_\_  
\_\_\_\_\_

(Each joint venturer must sign. The manner of signing for each individual, partnership and corporation that is a party to the joint venture should be in the manner indicated above.)

# BID BOND

BIDDER (Name and Address):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SURETY (Name and Address of Principal Place of Business):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

OWNER (Name and Address):

Allen Township Board of Supervisors  
4714 Indian Trail Rd  
Northampton PA 18067

BID

BID DUE DATE: \_\_\_\_\_

PROJECT (Brief Description Including Location):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

BOND

BOND NUMBER: \_\_\_\_\_

DATE (Not later than Bid Due Date): \_\_\_\_\_

PENAL SUM: \_\_\_\_\_

IN WITNESS WHEREOF, Surety and Bidder, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Bid Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

BIDDER

SURETY

\_\_\_\_\_  
Bidder's Name and Corporate Seal (Seal)

\_\_\_\_\_  
Surety's Name and Corporate Seal (Seal)

By: \_\_\_\_\_  
Signature and Title

By: \_\_\_\_\_  
Signature and Title  
(Attach Power of Attorney)

Attest: \_\_\_\_\_  
Signature and Title

Attest: \_\_\_\_\_  
Signature and Title

- 
- NOTE: (1) Above addresses are to be used for giving required notice.  
(2) Any singular reference to Bidder, Surety, Owner or other party shall be considered plural where applicable.  
(3) Bonding Company rating of B+ or higher required.
-

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond.

2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents and Contract Documents.

3. This obligation shall be null and void if:

3.1 Owner accepts Bidder's bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents and Contract Documents, or

3.2 All bids are rejected by Owner, or

3.3 Owner fails to issue a notice of award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by paragraph 5 hereof.)

4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.

5. The Surety, for value received, hereby stipulates and agrees that the obligation of said Surety and its Bond shall in no way be impaired or affected by any extension of the time within which the Owner may accept such Bid proposal, and Surety does hereby waive notice of any such extension.

6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in paragraph 4 above

is received by Bidder and Surety, and in no case later than one year after Bid Due Date.

7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.

8. Notice required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.

9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent or representative who executed this Bond on behalf of Surety to execute, seal and deliver such Bond and bind the Surety thereby.

10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of the Bond conflicts with any applicable provision of any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.

11. The term "bid" as used herein includes a bid, offer or proposal as applicable.

**NON-COLLUSION AFFIDAVIT**

Project Name:

State of \_\_\_\_\_:

: s.s.

County of \_\_\_\_\_:

I state that I am \_\_\_\_\_ of \_\_\_\_\_  
(Title) (Name of My Firm)

and that I am authorized to make this Affidavit on behalf of my firm, and its owners, directors and officers. I am the person responsible in my firm for the price(s) and the amount of this Bid.

I state that:

1. The price(s) and amount of this Bid have been arrived at independently and without consultation, communication or agreement with any other contractor, bidder or potential bidder.
2. Neither the price(s) nor the amount of this Bid, and neither the approximate price(s) nor approximate amount of this Bid, have been disclosed to any other firm or person who is a bidder or potential bidder, and they will not be disclosed before Bid opening.
3. No attempt has been made or will be made to induce any firm or person to refrain from bidding on this Contract, or to submit a bid higher than this Bid, or to submit any intentionally high or noncompetitive bid or other form of complementary bid.
4. The Bid of my firm is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary or other noncompetitive bid.
5. \_\_\_\_\_, its affiliates,  
(Name of My Firm)

subsidiaries, officers, directors and employees are not currently under investigation by any governmental agency and have not in the last 3 years been convicted or found liable for any act prohibited by state or federal law in any jurisdiction, involving conspiracy or collusion with respect to bidding on any public Contract, except as follows:

I state that \_\_\_\_\_ understands  
(Name of My Firm)

and acknowledges that the above representations are material and important, and will be relied on by Allen Township, in awarding the Contract(s) for which this Bid is submitted. I understand and my firm understands that any misstatement of this Affidavit is and shall be treated as fraudulent concealment from Allen Township of the true facts relating to submission of bids for this Contract.

\_\_\_\_\_  
(Name and Company Position)

SWORN TO AND SUBSCRIBED  
BEFORE ME THIS \_\_\_ DAY  
OF \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
Notary Public

\_\_\_\_\_  
My Commission Expires:

\* Involvement in this activity does not prohibit Allen Township from accepting this bid or awarding a contract; but this may be a ground for determining whether Allen Township should decide to award a contract based on a lack of responsibility.

## **INSTRUCTIONS FOR NON-COLLUSION AFFIDAVIT**

1. This Non-Collusion Affidavit is material to any contract awarded pursuant to this Bid. According to the Pennsylvania Antibid-Rigging Act, 73 P.S. § 1611 et seq., governmental agencies may require Non-Collusion Affidavits to be submitted together with bids.
2. This Non-Collusion Affidavit must be executed by the member, officer or employee of the Bidder who makes the final decision on prices and the amount quoted in the Bid.
3. Bid rigging and other efforts to restrain competition, and making of false sworn statements in connection with the submission of Bids are unlawful and may be subject to criminal prosecution. The person who signs the Affidavit should examine it carefully before signing and assure themselves that each statement is true and accurate, making diligent inquiry, as necessary, of all other persons employed by or associated with the Bidder with responsibilities for the preparation, approval or submission of the Bid.
4. In the case of a Bid submitted by a joint venture, each party to the venture must be identified in the Bid documents, and an Affidavit must be submitted separately on behalf of each party.
5. The term "Complementary Bid" as used in the Affidavit has the meaning commonly associated with that term in the bidding process, and includes the knowing submission of bids higher than the bid of another firm, any intentionally high or noncompetitive bid, and any other form of bid submitted for the purpose of giving a false appearance of competition.
6. Failure to file an Affidavit in compliance with these instructions will result in disqualification of the Bid.

## STATEMENT OF BIDDER'S QUALIFICATIONS

All questions must be answered and the data given must be clear and comprehensive. This statement must be notarized. If necessary, questions may be answered on separate attached sheets. The Bidder may submit any additional information that he desires.

1. Name of Bidder. \_\_\_\_\_
2. Permanent main office address. \_\_\_\_\_  
\_\_\_\_\_
3. When organized. \_\_\_\_\_
4. If a corporation, where incorporated. \_\_\_\_\_
5. How many years have you been engaged in business under your present firm or trade name? \_\_\_\_\_
6. Contracts on hand: (Schedule these showing gross amount of each contract and the appropriate anticipated dates of completion). \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
7. General character of work performed by your company. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
8. Have you ever failed to complete any work awarded to you? If so, where and why? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
9. Have you ever defaulted on a contract. If so, give details. \_\_\_\_\_  
\_\_\_\_\_
10. List the important contracts recently completed by you, stating approximate gross cost for each, and the month and year completed. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
11. List your major equipment available for this contract. \_\_\_\_\_  
\_\_\_\_\_

12. Experience in construction work similar in importance to this project.

\_\_\_\_\_

13. Background and experience of the principal members of your organization, including the officers.

\_\_\_\_\_

14. Credit available. \_\_\_\_\_

15. Give bank references. \_\_\_\_\_

16. Will you, upon request, fill out a detailed financial statement and furnish any other information that may be required by the municipality?

\_\_\_\_\_

17. The undersigned hereby authorizes and requests any person, firm or corporation to furnish any information requested by the Authority in verification of the recitals comprising this Statement of Bidder's Qualifications.

Date at \_\_\_\_\_ this \_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
(Name of Bidder)

By: \_\_\_\_\_

Title: \_\_\_\_\_

State of \_\_\_\_\_ )  
County of \_\_\_\_\_ ) SS:

\_\_\_\_\_ being duly sworn, deposes and say that he is  
the \_\_\_\_\_ of \_\_\_\_\_

and that the answers to the foregoing questions and all statements herein contained are true and correct.

Subscribed and sworn to before me this \_\_\_ day of \_\_\_\_\_, 20\_\_.



**NOTICE OF AWARD**

Date:

To:

Address:

Contact:

Project:

Owner's Contract No.: *(to be assigned on award)*

You are notified that your Bid dated \_\_\_\_\_ for the above Contract has been received. You are the apparent low Bidder for Supply and Installation of Ductless Heat Pump/Air Conditioning Units.

The Contract price of the project is \_\_\_\_\_ Dollars and \_\_\_\_\_ cents (\$ ).

You are required to deliver the executed Contract Documents within 10 days after receipt of this Notice of Award. Four copies are enclosed for your use, three of which are to be executed and returned, to the attention of the Allen Township Manager at the address listed below.

Please return an accepted copy of this Notice of Award together with three executed copies of the Contract Documents, required Contract security as specified in the Instructions to Bidders (Article 20), General Conditions (paragraph 5.01) and insurance certificates, Schedule of Values and other documentation (as may be required) including the Workmen's Compensation Affidavit. Owner will not enter into the Agreement until the required bonds and insurance are received, reviewed and approved, and Contractor has properly executed the Agreement and delivered it to the Owner.

ACCEPTANCE OF NOTICE

Receipt of this Notice of Award is hereby acknowledged this day of \_\_\_\_\_.

By: \_\_\_\_\_

For: Allen Township  
\_\_\_\_\_

Title: \_\_\_\_\_

By: \_\_\_\_\_  
Ilene Eckhart, Township Manager  
Allen Township  
4714 Indian Trail Road  
Northampton PA 18067

\_\_\_\_\_  
(CONTRACTOR)

## AGREEMENT

This Agreement is dated \_\_\_\_\_ by and between Allen Township (hereinafter called OWNER) and \_\_\_\_\_ (hereinafter called CONTRACTOR).

OWNER and CONTRACTOR in consideration of the mutual covenants hereinafter set forth, agree as follows:

### Article 1. WORK

*CONTRACTOR shall complete all Work as specified or indicated in the Contract Documents. The Work will include all equipment, labor and materials to complete the Supply and Installation of Ductless Heat Pump/Air Conditioning Units at various locations at within the Municipal Building Structure physically located at 4714 Indian Trail Road, Northampton, PA. and to complete the project as indicated pursuant to the specifications including all work necessary to make all newly installed units function in a manner acceptable to the OWNER. All work to be in accordance with Allen Township-Northampton County specifications and any other local, state or federal requirements.*

### Article 2. THE PROJECT

The project for which the Work under the Contract Documents may be the whole or only a part is generally described as Supply and Installation of Ductless Heat Pump/Air Conditioning Units.

### Article 3. TOWNSHIP REPRESENTATIVE

The project has been administered by Allen Township Board of Supervisors, 4714 Indian Trail Road, Northampton, 18067, through the Township Manager, who is hereinafter called TOWNSHIP REPRESENTATIVE and who is to act as OWNER'S representative, assume all duties and responsibilities and have the rights and authority assigned to TOWNSHIP REPRESENTATIVE in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents.

### Article 4. CONTRACT TIME

#### 4.01 Time of the Essence

A. All time limits for milestones, if any, substantial completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

B. Substantial completion and Final payment dates are definitive milestones

with provisions for liquidated damages for delay as outlined for substantial completion in Section 4.03 liquidated surcharges.

#### 4.02 Dates for Substantial Completion and Final Payment

A. The Work will be substantially complete within 90 calendar days from the date when the Contract commences to run as provided in Paragraph 2.03 of the General Conditions and completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions on or before 135 calendar days from the date when the Contract commences to run.

#### 4.03 Liquidated Damages

A. OWNER and CONTRACTOR recognize that time is of the essence of this Agreement and that OWNER will suffer financial loss if the Work is not completed within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. They also recognize the delays, expense and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by OWNER if the Work is not completed on time. Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty) CONTRACTOR shall pay two hundred and fifty dollars (\$250.00) for each calendar day that expires after the time specified in paragraph 3.1 for substantial completion until the Work is substantially complete. After substantial completion, if CONTRACTOR shall neglect, refuse or fail to complete the remaining Work within the Contract time or any proper extension thereof granted by the OWNER, CONTRACTOR shall pay OWNER two hundred and fifty dollars (\$250.00) for each calendar day that expires after the time specified in Paragraph 4.02 for completion and readiness for final payment.

#### Article 5. CONTRACT PRICE

5.01 OWNER shall pay CONTRACTOR for completion of the Work in accordance with the Contract Documents in current funds and in accordance with unit prices for items awarded by OWNER as indicated on attached Bid Form, Exhibit A.

#### Article 6. PAYMENT PROCEDURES

Payment shall be made in accordance with Article 14 of the General Conditions.

##### 6.01 Submittal and Processing of Payments

A. CONTRACTOR shall submit Application for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by TOWNSHIP REPRESENTATIVE as provided in the General Conditions.

##### 6.02 Progress Payments; Retainage

A. OWNER shall make progress payments on account of the Contract price on the basis of CONTRACTOR'S Applications for Payment as recommended by TOWNSHIP REPRESENTATIVE. All progress payments will be approved on the basis of the progress of the Work measured by the Schedule of Values established in paragraph 2.07 of the General Conditions (and in the case of unit price work based on the number of units completed) or, in the event there is no Schedule of Values, as provided in the general requirements.

1. Prior to substantial completion, progress payments will be made in an amount equal to the percentage indicated below, but, in each case, less the aggregate of payments previously made and less such amounts as TOWNSHIP REPRESENTATIVE shall determine, or OWNER may withhold, in accordance with Paragraph 14.02 of the General Conditions.

a. OWNER may retain 10% of the amount of all progress payment due until 50% of the Work has been completed. When the Contract is 50% completed, the CONTRACTOR may apply for a reduction in retainage. At that time, one-half of the amount retained by OWNER shall be returned to CONTRACTOR provided that TOWNSHIP REPRESENTATIVE approves the Application for Payment, that the CONTRACTOR is making satisfactory progress, and there is no specific cause for greater withholding. OWNER, after 50% of the Work has been completed, may retain 5% of the remaining progress payments. After substantial completion, OWNER may retain 1½ times such amount as is required to complete any, then remaining, uncompleted items as certified by TOWNSHIP REPRESENTATIVE.

2. Upon substantial completion, payment will be made in an amount sufficient to increase total payments to CONTRACTOR to 100% of the Contract price, less than such amounts as TOWNSHIP REPRESENTATIVE shall determine, or OWNER may withhold, in accordance with Paragraph 14.02.B.5 of the General Conditions.

### 6.03 Final Payment

A. Upon final completion and acceptance of the Work in accordance with Paragraph 14.07 of the General Conditions, OWNER shall pay the remainder of the Contract price as recommended by TOWNSHIP REPRESENTATIVE as provided in said Paragraph 14.07.

## Article 7. INTEREST

7.01 No allowance for interest shall be made with respect to progress payments prior to substantial completion. The final payment due the CONTRACTOR for the completed work after the Township Representative has certified substantial completion of the work shall bear interest at a rate of ten (10%) percent per annum, such interest to begin to accrue from the date such

payment shall become due and payable to the CONTRACTOR; provided, however, that where the OWNER has issued bonds to finance the project to which the work relates, interest shall be payable to the CONTRACTOR at the rate of interest of bond issue or at the rate of ten (10%) percent per annum, whichever is less, in accordance with 68 Pa. C.S. Chapter 39.

**Article 8. CONTRACTOR'S REPRESENTATIONS**

8.01 In order to induce OWNER to enter into this Agreement, CONTRACTOR makes the following representations:

A. CONTRACTOR has examined and carefully studied the Contract Documents (including the Addenda listed in Article 9) and other related data identified in the Bidding Documents including "technical data."

B. CONTRACTOR has visited the site and become familiar with and is satisfied as to the general, local and site conditions that may affect cost, progress, performance, or furnishing of the Work.

C. CONTRACTOR is familiar with and is satisfied as to all federal, state and local laws and regulations that may affect cost, progress, performance, and furnishing of the Work.

D. CONTRACTOR has studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the site (except underground facilities) which have been identified in the Supplementary Conditions as provided in Paragraph 4.02 of the General Conditions, and (2) reports and drawings of hazardous environmental condition, if any, at the site which has been identified in the Supplementary Conditions as provided in Paragraph 4.06 of the General Conditions. CONTRACTOR accepts the determination set forth in Paragraph 4.02 of the Supplementary Conditions of the extent of the "technical data" contained in such reports and drawings upon which CONTRACTOR is entitled to rely as provided in Paragraph 4.02 of the General Conditions. CONTRACTOR acknowledges that such reports and drawings are not Contract Documents and may not be complete for CONTRACTOR'S purposes. CONTRACTOR acknowledges that OWNER and TOWNSHIP REPRESENTATIVE do not assume responsibility for the accuracy or completeness of information and data shown or indicated in the Contract Documents with respect to underground facilities at or contiguous to the site.

E. CONTRACTOR has obtained and carefully studied (or assumes responsibility for having done so) all such additional supplementary examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface and underground facilities) at or contiguous to the site or otherwise which may affect cost, progress, performance or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences and procedures of construction to be employed by

CONTRACTOR and safety precautions and programs incident thereto.

F. CONTRACTOR does not consider that any additional examinations, investigations, explorations, tests, studies or data are necessary for the performance and furnishing of the Work at the Contract price, within the Contract times, and in accordance with the other terms and conditions of the Contract Documents.

G. CONTRACTOR is aware of the general nature of Work to be performed by OWNER and others at the site related to the Work as indicated in the Contract Documents.

H. CONTRACTOR has correlated the information known to CONTRACTOR, information and observations obtained from visits to the site, reports and drawings identified in the Contract Documents and all additional examinations, investigations, explorations, tests, studies, and data with the Contract Documents.

I. CONTRACTOR has given TOWNSHIP REPRESENTATIVE written notice of all conflicts, errors, ambiguities or discrepancies that CONTRACTOR has discovered in the Contract Documents and the written resolution thereof by TOWNSHIP REPRESENTATIVE is acceptable to CONTRACTOR.

J. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

## Article 9. CONTRACT DOCUMENTS

### 9.01 Contents

A. The Contract Documents which comprise the entire Agreement between OWNER and CONTRACTOR concerning the Work consist of the following:

1. Bid Documents
  - a. Invitation to Bid
  - b. Instructions to Bidders
  - c. Prevailing Wage Determination (if required based upon threshold)
  - d. Non-Collusion Affidavit
  - e. Worker's Compensation Affidavit
  - f. Experience Questionnaire
  - g. List of proposed subcontractors
2. This Agreement (pages A-1 to A-8, and signature pages).
3. Performance Bond.

4. Payment Bond.
5. Other Bonds.
6. Notice of Award.
7. Stipulation Against Liens
8. Worker's Compensation Affidavit
9. General Conditions (pages 1 to 42, inclusive).
10. Pennsylvania Prevailing Wage Rates and requirements (if required based upon threshold)
11. Specifications as listed in the Table of Contents.
12. Addenda
13. Exhibits to this Agreement (enumerated as follows):
  - a. Notice to Proceed.
  - b. CONTRACTOR'S Bid Form pages (all).
  - c. CONTRACTOR's Schedule of Values.
  - d. Documentation submitted by CONTRACTOR prior to Notice of Award.

14. The following which may be delivered or issued after the effective date of the Agreement and are not attached hereto:

- a. All written amendments.
- b. Work Change Directives
- c. Change Orders
- d. Application for payment
- e. Certificate of Substantial Completion
- f. Consent of Surety
- g. Maintenance Bond.

B. There are no Contract Documents other than those listed above in this

Article 9.

C. The Contract Documents may only be amended, modified or supplemented as provided in Paragraphs 3.05 of the General Conditions.

Article 10. MISCELLANEOUS

10.01 Terms

A. Terms used in this Agreement which are defined in Article 1 of the General Conditions will have the meanings indicated in the General Conditions.

10.02 Assignment of Contract

A. No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically, but without limitation, monies that may become due and monies that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law) and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

10.03 Successors and Assigns

A. OWNER and CONTRACTOR each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect of all covenants, agreements and obligations contained in the Contract Documents.

10.04 Severability

A. Any provision or part of the Contract Documents held to be void or unenforceable under any law or regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon OWNER and CONTRACTOR, who agree that the Contract Documents shall be reformed or replace such stricken provision or part thereof with a valid and forcible provision that comes as close as possible to expressing the intention of the stricken provision.

10.05 Other provisions.

A. None.

IN WITNESS WHEREOF, the CONTRACTOR and OWNER have executed this Agreement in triplicate. One counterpart each has been delivered to OWNER, CONTRACTOR and TOWNSHIP REPRESENTATIVE. All portions of the Contract Documents have been signed or identified by



OWNER and  
CONTRACTOR or by TOWNSHIP REPRESENTATIVE on their behalf.

This Agreement will be effective on \_\_\_\_\_, 20\_\_.

OWNER

CONTRACTOR:

Allen Township Board of Supervisors

\_\_\_\_\_

By: \_\_\_\_\_  
Township Manager

By: \_\_\_\_\_

[TOWNSHIP SEAL]

[CORPORATE SEAL]

Attest: \_\_\_\_\_

Attest: \_\_\_\_\_

Address for giving notices:

Address for giving notices:

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

(If OWNER is a corporation, attach evidence of authority to sign. If OWNER is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of OWNER-CONTRACTOR agreement.)

License No. \_\_\_\_\_  
(Where applicable)

Agent for service of process: \_\_\_\_\_

(If CONTRACTOR is a corporation or a partnership, attach evidence of authority to sign.)

STIPULATION AGAINST LIENS

ALLEN TOWNSHIP BOARD OF SUPERVISORS

OWNER

VS.

CONTRACTOR

WHEREAS, OWNER, Allen Township Board of Supervisors, is about to execute contemporaneously herewith a contract with CONTRACTOR, a corporation organized and existing under the laws of the Commonwealth of Pennsylvania, for the Supply and Installation of Ductless Heat Pump/Air Conditioning Units (Meeting Room, Front Office, Back Office) , a site located within Allen Township, Northampton County, Pennsylvania.

NOW THEREFORE, on \_\_\_\_\_, 20\_\_, at the time of and immediately before the execution of the contract and before any authority has been given by the OWNER to the CONTRACTOR to commence work on the said project or purchase materials for the same, in consideration of the making of the said contract with the said CONTRACTOR, and for the further consideration of One Dollar paid to the OWNER by the said CONTRACTOR, it is agreed that no mechanic's claims or other liens shall be filed against the buildings, and/or the land on which these contract improvements are located and/or the land improved by these contract improvements by the said CONTRACTOR, nor any subcontractor, nor by any of the material men or workmen or any person for any materials or labor or extra materials or labor purchased or furnished in connection with the construction of the said project or any part thereof, the right to file such claims or liens being expressly waived and relinquished herewith:

(SEAL)

BY: Allen Township  
OWNER

ATTEST:

\_\_\_\_\_  
NAME OF CONTRACTOR

(SEAL)

ATTEST:

BY: \_\_\_\_\_  
Secretary

**PERFORMANCE BOND**

(1) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

(2) Bonding Company rating of B+ or higher required.

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ACTOR (Name and Address):            SURETY (Name and Address of Principal Place of Business):

OWNER (Name and Address):    Allen Township-Northampton County  
Board of Supervisors  
4714 Indian Trail Road  
Northampton PA 18067

**CONTRACT**

Date:  
Amount:  
Description (Name and Location):

**BOND**

Date (Not earlier than Contract Date):  
Amount:  
Modifications to this Bond Form:

Surety and Contractor, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Performance Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL  
Company: \_\_\_\_\_

(Corp. Seal)

(Corp. Seal)

Signature: \_\_\_\_\_  
Name and Title

SURETY  
Company: \_\_\_\_\_

Signature: \_\_\_\_\_  
Name and Title  
(Attach Power of Attorney)

(Space is provided below for signatures of additional parties, if required.)

CONTRACTOR AS PRINCIPAL  
Company: \_\_\_\_\_

(Corp. Seal)

SURETY  
Company: \_\_\_\_\_

(Corp. Seal)

Signature: \_\_\_\_\_  
Name and Title

Taken from EJCDC No. 1910-28-A (1996 Edition)

Signature: \_\_\_\_\_  
Name and Title  
(Attach Power of  
Attorney)

1. The Contractor and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.
2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except to participate in conferences as provided in Subparagraph 3.1.
3. If there is no Owner Default, the Surety's obligation under this Bond shall arise after:
  - 3.1. The Owner has notified the Contractor and the Surety at its address described in paragraph 10 below, that the Owner is considering declaring a Contractor Default and has requested and attempted to arrange a conference with the Contractor and the Surety to be held not later than fifteen days after receipt of such notice to discuss methods of performing the Construction Contract. If the Owner, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right. If any, subsequently to declare a Contractor Default; and
  - 3.2. The Owner has declared a Contractor Default and formally terminated the Contractor's right to complete the contract. Such Contractor Default shall not be declared earlier than twenty days after the Contractor and the Surety have received notice as provided in Subparagraph 3.1; and
  - 3.1. The Owner has agreed to pay the Balance of the Contract Price to the Surety in accordance with the terms of the Construction Contract or to a contractor selected to perform the Construction Contract in accordance with the terms of the contract with the Owner.
4. When the OWNER has satisfied the conditions of Paragraph 3, the Surety shall comply and at the Surety's expense take one of the following actions:
  - 4.1 Arrange for the CONTRACTOR, with consent of the OWNER, to perform and complete the Contract; or
  - 4.2 Undertake to perform and complete the Contract itself, through its agents or through independent contractors; or
  - 4.3 Obtain bids or negotiate proposals from qualified contractors acceptable to the OWNER for a contract for performance and completion of the Contract, arrange for a contract to be prepared for execution by the OWNER and the contractor selected with the OWNER's concurrence, to be secured with performance and payment bonds, executed by a qualified surety equivalent to the Bonds issued on the Contract, and pay to the OWNER the amount of damages as described in paragraph 6 in excess of the Balance of the Contract Price incurred by the OWNER resulting from the CONTRACTOR Default; and,
  - 4.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances;
    - 4.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, tender payment therefore to the Owner; or
    - 4.4.2 Deny Liability in whole or in part and notify the Owner citing reasons therefore.
5. If the Surety does not proceed as provided in Paragraph 4 with reasonable promptness, the Surety shall be deemed to be in default on this Bond fifteen days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Subparagraph 4.2, and the Owner refuses the payment tendered or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the OWNER

6. After the Owner has terminated the Contractor's right to complete the Contract, and if the Surety elects to act under paragraph 4.1, 4.2, or 4.3 above, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the contract. To a limit of the amount of this Bond, but subject to commitment by the Owner of the Balance of the Contract Price to mitigation of costs and damages on the Contract, the Surety is obligated without duplication for:

The responsibilities of the Contractor for correction of defective work and completion of the Contract;

- 6.1 Additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under paragraph 4; and
- 6.2 Liquidation damages, or if no liquidated damages are specified in the Contract, actual damages caused by delayed performance or non-performance of the Contractor.
- 7 The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No or its heirs, executors, administrators, or successors.
- 8 The Surety hereby waives notice of any changes of time, to the Contract or to related subcontracts, purchase orders, and other obligations.
- 9 Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the Work is located and shall be instituted within two years after contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.
- 10 Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the signature page.
- 11 When this Bond has been furnished to comply with a statutory or legal requirement shall be deemed deleted here from and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.
- 12 Definitions:
  - 12.1 Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Contract after all proper adjustments have been made, including allowance to the Contractor of any amounts received by the Owner in settlement of insurance or other Claims for damages to which the Contractor is entitled, reduce by all valid and proper payments made to or on behalf of the Contractor under the Contract.
  - 12.2 Contract: The agreement between the Owner and the Contractor identified on the signature page, including all Contract Documents and changes thereto.
  - 12.3 Contractor Default: Failure to the Owner, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Contract.
  - 12.4 Owner Default: Failure of the Owner, which has neither been remedied nor waived, to pay the Contractor as required by the Contract or to perform and complete or comply with the other terms thereof.

**ALLEN TOWNSHIP BID SPECIFICATIONS AND CONTRACT DOCUMENTS  
SUPPLY AND INSTALLATION OF DUCTLESS HEAT PUMP/AIR CONDITIONING  
UNITS**

**SPECIFICATIONS FOR UNIT PRICE WORK ITEM**

**MEETING ROOM (NORTH SIDE OF BUILDING)  
ITEM NO. 1 - COMPONENT #1MR HEAT PUMP OUTDOOR UNIT**

	Phase, Cycle, Voltage	1 Phase, 60Hz, 208/230V
Power Supply		
	Rated Capacity	22000 / 23600 Btu/h (6.4 / 6.9 kW)
	Capacity Range	12600 - 25500 Btu/h (3.7 - 7.5 kW)
Cooling	Total Input	2460 < 1000 - 2950 > W (2.5 < 1 - 3 > kW)
	Energy Efficiency SEER	17.5
	EER	12.5
	Rated Capacity	25000 / 24600 Btu/h (7.3 / 7.2 kW)
	Capacity Range	11400 - 30600 Btu/h (3.3 - 9 kW)
Heating at 47° F	Total Input	1900 (740 - 2600) W
	HSPF (Region IV)	9.3
	COP	4.2
	Maximum Capacity	18800 / 17000 Btu/h (5.5 / 5 kW)
	COP	2.98 Btu/Btu
Heating at 17° F	Total Input	1380 / 1570 W
	Rated Capacity	14000 / 14000 Btu/h (4.1 / 4.1 kW)
Heating at 5° F	Maximum Capacity	13336 Btu/h (4.8 kW)
Minimum Circuit Ampacity	MCA	18 Ampere
Maximum fuse size (time delay)	MOCP	20 Ampere
Recommended Fuse/Breaker Size		20 Ampere
	Oil Type	NEO22 (29.4)
Refrigerant	Type	R410A
	Charge	7, 11
	Control	Linear Expansion Valve
	Type	DC INVERTER-driven Twin
Compressor		Rotary
	Model	TNB220FMCH
	L.R.A.	15

*Specification Subpackage 1A*

	R.L.A.	11	
Fan	Fan Motor - F.L.A.	0.93 F.L.A.	
Airflow	Cooling	2068 CFM (59 m <sup>3</sup> /min)	
	Heating	1605 CFM (45 m <sup>3</sup> /min)	
Sound Pressure Level	Cooling	54 dB(A)	
	Heating	49 dB(A)	
	Height	35-7/16 Inches (900 mm)	
Dimensions H x W x D	Width	35-7/16 Inches (900 mm)	
	Depth	12-5/8 Inches (321 mm)	
	Gas (Low Pressure)	A: 1/2 Inch (12.7 mm) ; B,C: 3/8 Inch (9.52 mm)	
Refrigerant Pipe Size O.D.	Liquid (High Pressure)	1/4 Inch (6.35 mm)	
Maximum Refrigerant Pipe Number of Indoor Units	Length	230 ft. (70 m)	
		2, 3	
Maximum Refrigerant Pipe Height Difference	If Indoor Unit is Above Outdoor Unit	49 ft. (15 m)	
	If Indoor Unit is Below Outdoor Unit	33 ft. (10 m)	
Maximum Piping	Length for Each Indoor Unit	82 ft. (25 m)	
Refrigerant Piping	Connection Method Indoor / Outdoor	Flared / Flared	
	Cooling - Maximum - DB , WB	95°F (35°C) DB, 71°F (22°C) WB	
	Cooling - Minimum - DB , WB	67°F (19°C) DB , 57°F (14°C) WB	
	Heating - Maximum - DB , WB	80°F (27°C) DB, 67°F (19°C) WB	
	Heating - Minimum - DB , WB	70°F (21°C) DB, 60°F (16°C) WB	
	Heating - Minimum - WB	60°F (16°C) WB	
	Operation Conditions - Indoor Intake Air Temperature	Heating - Minimum - DB	70°F (21°C) DB
		Cooling - Minimum - DB	67°F (19°C) DB
		Cooling - Maximum - WB	71°F (22°C) WB
		Cooling - Maximum - DB	95°F (35°C) DB
Heating - Maximum - WB		67°F (19°C) WB	
Heating - Maximum - DB		80°F (27°C) DB, 67°F (19°C) WB	
Cooling - Minimum - WB	57°F (14°C) WB		

Specification Subpackage 1A



	Cooling - Maximum - DB , WB	115°F (46°C) DB
	Heating - Maximum - DB , WB	75°F (24°C) DB, 65°F (18°C) WB
	Heating - Minimum - DB , WB	6°F (-14°C) DB, 5°F (-15°C) WB
	Cooling - Maximum - WB	115°F (46°C) DB
Operation Conditions - Outdoor Intake Air Temperature	Cooling - Maximum - DB	115°F (46°C) DB
	Heating - Maximum - DB	75°F (24°C) DB
	Cooling- Minimum - DB	14°F (-10°C) DB
	Heating - Minimum - WB	5°F (-15°C) WB
	Heating - Minimum - DB	6°F (-14°C) DB
	Heating - Maximum - WB	65°F (18°C) WB
External Finish		Munsell 3Y 7.8/1.1
Voltage	Indoor - Outdoor S2-S3	DC 12-24V
Defrost Method	Indoor - Outdoor S1-S2	AC 208 / 230V Reverse Cycle

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**ALLEN TOWNSHIP BID SPECIFICATIONS AND CONTRACT DOCUMENTS  
SUPPLY AND INSTALLATION OF DUCTLESS HEAT PUMP/AIR CONDITIONING  
UNITS**

**SPECIFICATIONS FOR UNIT PRICE WORK ITEM**

**MEETING ROOM (NORTH SIDE OF BUILDING)  
ITEM NO. 1 - COMPONENTS #2MR HEAT PUMP INDOOR UNITS**

Power Supply	Phase, Cycle, Voltage	1 Phase, 60Hz, 208/230V
	Rated Capacity	12000 Btu/h (3.52 kW)
	Capacity Range	3800 - 13600 Btu/h (1.1 - 4 kW)
	Total Input	960 < 205 - 1300 > W (1 < 0.2 - 1.3 > kW)
Cooling	Energy Efficiency SEER	20.5
	Sensible Heat Factor	0.74
	EER	12.5
	Moisture Removal Pints/H	2.5
	Rated Capacity	14400 Btu/h (4.2 kW)
	Capacity Range	5500 - 18100 Btu/h (1.6 - 5.3 kW)
Heating at 47° F	Total Input	1170 (340 - 1660) W
	HSPF (Region IV)	10
	COP	3.6
	Maximum Capacity	11200 Btu/h (3.3 kW)
	COP	2.86 Btu/Btu
Heating at 17° F	Rated Capacity	8800 Btu/h (2.6 kW)
	Total Input	900 W
Heating at 5° F	Maximum Capacity	9194 Btu/h (4.8 kW)
Minimum Circuit Ampacity	MCA	1 Ampere
Recommended Fuse/Breaker Size		15 Ampere
Refrigerant	Type	R410A
Fan	Fan Motor - F.L.A.	0.76 F.L.A
	Cooling : DRY	145-170-237-321-399 CFM (4-5-7-9 m <sup>3</sup> /min)
Airflow	Cooling : WET	109-134-201-286-364CFM (3-4-6-8-10 m <sup>3</sup> /min)
	Heating : WET	145-170-237-321-406 CFM (4-5-7-9-11 m <sup>3</sup> /min)
Sound Pressure Level	Heating	19-22-30-37-43 dB(A)
	Cooling	19-22-30-37-45 dB(A)
	Height	11-5/8 Inches (295 mm)
Dimensions H x W x D	Width	31-3/8 Inches (799 mm)
	Depth	9-1/8 Inches (232 mm)

*Specification Sub Package 1B*

Refrigerant Pipe Size O.D.	Gas (Low Pressure)	3/8 Inch (9.52 mm)
	Liquid (High Pressure)	1/4 Inch (6.35 mm)
Field Drainpipe Size O.D.		5/8 Inch (15.88 mm)
Refrigerant Piping	Connection Method	Flared / Flared
	Indoor / Outdoor	
	Cooling - Maximum - DB	90°F (32°C) DB , 73°F (23°C)
	, WB	WB
	Cooling - Minimum - DB	67°F (19°C) DB , 57°F (14°C)
	, WB	WB
	Heating - Maximum - DB	80°F (27°C) DB, 67°F (19°C)
	, WB	WB
	Heating - Minimum - DB	70°F (21°C) DB, 60°F (16°C)
	, WB	WB
Operation Conditions - Indoor Intake Air Temperature	Cooling - Minimum - WB	57°F (14°C) WB
	Heating - Maximum - WB	67°F (19°C) WB
	Heating - Maximum - DB	80°F (27°C) DB, 67°F (19°C)
	, WB	WB
	Cooling - Maximum - DB	90°F (32°C) DB
	Cooling - Maximum - WB	73°F (23°C) WB
	Cooling - Minimum - DB	67°F (19°C) DB
	Heating - Minimum - DB	70°F (21°C) DB
	Heating - Minimum - WB	60°F (16°C) WB
	Cooling - Maximum - DB	115°F (46°C) DB
	, WB	
	Heating - Maximum - DB	75°F (24°C) DB, 65°F (18°C)
	, WB	WB
	Heating - Minimum - DB	-4°F (-20°C) DB, -5°F (-21°C)
	, WB	WB
Operation Conditions - Outdoor Intake Air Temperature	Cooling - Maximum - DB	115°F (46°C) DB
	Heating - Maximum - WB	65°F (18°C) WB
	Heating - Minimum - DB	-4°F (-20°C) DB
	Heating - Minimum - WB	-5°F (-21°C) WB
	Cooling - Maximum - WB	115°F (46°C) WB
	Cooling - Minimum - DB	14°F (-10°C) DB
	Heating - Maximum - DB	75°F (24°C) DB
External Finish		Munsell 1.0Y 9.2 / 0.2
Voltage	Indoor - Outdoor S1-S2	AC 208 / 230V
	Indoor - Outdoor S2-S3	DC 12-24V

Specification SubPackage 1B

**ALLEN TOWNSHIP BID SPECIFICATIONS AND CONTRACT DOCUMENTS  
SUPPLY AND INSTALLATION OF DUCTLESS HEAT PUMP/AIR CONDITIONING  
UNITS**

**SPECIFICATIONS FOR UNIT PRICE WORK ITEM**

**FRONT OFFICE (WEST SIDE OF BUILDING)  
ITEM NO. 2 - COMPONENT #1FO HEAT PUMP OUTDOOR UNIT**

Power Supply	Phase, Cycle, Voltage	1 Phase, 60Hz, 208/230V
	Rated Capacity	18000 / 20000 Btu/h (5.3 / 5.9 kW)
	Capacity Range	7800 - 20000 Btu/h (2.3 - 5.9 kW)
Cooling	Total Input	2190 < 630 - 2190 > W (2.2 < 0.6 - 2.2 > kW)
	Energy Efficiency SEER	18
	EER	12.5
	Rated Capacity	22000 / 22000 Btu/h (6.4 / 6.4 kW)
	Capacity Range	8500 - 25500 Btu/h (2.5 - 7.5 kW)
Heating at 47° F	Total Input	2620 (520 - 2620) W
	HSPF (Region IV)	8.9
	COP	3.9
	Maximum Capacity	14500 / 12500 Btu/h (4.2 / 3.7 kW)
Heating at 17° F	COP	2.7 Btu/Btu
	Total Input	1350 / 1430 W
	Rated Capacity	12500 / 12500 Btu/h (3.7 / 3.7 kW)
Heating at 5° F	Maximum Capacity	11113 Btu/h (4.8 kW)
Minimum Circuit Ampacity	MCA	15 Ampere
Maximum fuse size (time delay)	MOCP	20 Ampere
Recommended Fuse/Breaker Size		15 Ampere
Refrigerant	Oil Type	NEO22 (23.7)
	Type	R410A
	Charge	5 Lbs., 15 Oz.
	Control	Linear Expansion Valve
	Type	DC INVERTER-driven Twin Rotary
Compressor	Model	SNB130FQBH1
	L.R.A.	15
	R.L.A.	10.1
Fan	Fan Motor - F.L.A.	0.96 F.L.A
Airflow	Cooling	1485 CFM (42 m <sup>3</sup> /min)
	Heating	1640 CFM (46 m <sup>3</sup> /min)

*Specification SubPackage 2A*



Sound Pressure Level	Cooling	49 dB(A)
	Heating	51 dB(A)
Dimensions H x W x D	Height	27-15/16 Inches (710 mm)
	Width	33-1/16 Inches (840 mm)
	Depth	13 Inches (330 mm)
Refrigerant Pipe Size O.D.	Gas (Low Pressure)	A,B: 3/8 Inch (9.52 mm)
	Liquid (High Pressure)	1/4 Inch (6.35 mm)
Maximum Refrigerant Pipe Length		164 ft. (50 m)
Number of Indoor Units		2
Maximum Refrigerant Pipe Height Difference	If Indoor Unit is Above Outdoor Unit	49 ft. (15 m)
	If Indoor Unit is Below Outdoor Unit	33 ft. (10 m)
Maximum Piping	Length for Each Indoor Unit	82 ft. (25 m)
Refrigerant Piping	Connection Method	Flared / Flared
	Indoor / Outdoor	
Operation Conditions - Indoor Intake Air Temperature	Cooling - Maximum - DB	95°F (35°C) DB, 71°F (22°C) , WB
	Cooling - Minimum - DB	67°F (19°C) DB , 57°F (14°C) , WB
	Heating - Maximum - DB	80°F (27°C) DB, 67°F (19°C) , WB
	Heating - Minimum - DB	70°F (21°C) DB, 60°F (16°C) , WB
	Heating - Maximum - WB	67°F (19°C) WB
	Heating - Maximum - DB	80°F (27°C) DB, 67°F (19°C) WB
	Cooling - Minimum - WB	57°F (14°C) WB
	Heating - Minimum - WB	60°F (16°C) WB
	Heating - Minimum - DB	70°F (21°C) DB
	Cooling - Minimum - DB	67°F (19°C) DB
	Cooling - Maximum - WB	71°F (22°C) WB
	Cooling - Maximum - DB	95°F (35°C) DB
	Cooling - Maximum - DB	115°F (46°C) DB , WB
	Heating - Maximum - DB	75°F (24°C) DB, 65°F (18°C) , WB
Operation Conditions - Outdoor Intake Air Temperature	Heating - Minimum - DB	6°F (-14°C) DB, 5°F (-15°C) , WB
	Heating - Minimum - WB	5°F (-15°C) WB
	Heating - Minimum - DB	6°F (-14°C) DB
	Heating - Maximum - WB	65°F (18°C) WB

*Specification Subpackage 2A*

	Cooling - Maximum -	115°F (46°C) DB
	WB	
	Cooling - Maximum - DB	115°F (46°C) DB
	Heating - Maximum - DB	75°F (24°C) DB
	Cooling- Minimum - DB	14°F (-10°C) DB
Defrost Method		Reverse Cycle
Voltage	Indoor - Outdoor S2-S3	DC 12-24V
	Indoor - Outdoor S1-S2	AC 208 / 230V
External Finish		Munsell 3Y 7.8/1.1

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*Specification SubPackage 2A*

**ALLEN TOWNSHIP BID SPECIFICATIONS AND CONTRACT DOCUMENTS  
SUPPLY AND INSTALLATION OF DUCTLESS HEAT PUMP/AIR CONDITIONING  
UNITS**

**SPECIFICATIONS FOR UNIT PRICE WORK ITEM**

**FRONT OFFICE (WEST SIDE OF BUILDING)  
ITEM NO. 1 - COMPONENT #2FO HEAT PUMP INDOOR UNIT**

Power Supply	Phase, Cycle, Voltage	1 Phase, 60Hz, 208/230V
	Rated Capacity	12000 Btu/h (3.52 kW)
	Capacity Range	3800 - 13600 Btu/h (1.1 - 4 kW)
	Total Input	960 < 205 - 1300 > W (1 < 0.2 - 1.3 > kW)
Cooling	Energy Efficiency SEER	20.5
	Sensible Heat Factor	0.74
	EER	12.5
	Moisture Removal Pints/H	2.5
	Rated Capacity	14400 Btu/h (4.2 kW)
	Capacity Range	5500 - 18100 Btu/h (1.6 - 5.3 kW)
Heating at 47° F	Total Input	1170 (340 - 1660) W
	HSPF (Region IV)	10
	COP	3.6
	Maximum Capacity	11200 Btu/h (3.3 kW)
Heating at 17° F	COP	2.86 Btu/Btu
	Rated Capacity	8800 Btu/h (2.6 kW)
	Total Input	900 W
Heating at 5° F	Maximum Capacity	9194 Btu/h (4.8 kW)
Minimum Circuit Ampacity	MCA	1 Ampere
Recommended Fuse/Breaker Size		15 Ampere
Refrigerant	Type	R410A
Fan	Fan Motor - F.L.A.	0.76 F.L.A.
	Cooling : DRY	145-170-237-321-399 CFM (4-5-7-9 m <sup>3</sup> /min)
Airflow	Cooling : WET	109-134-201-286-364CFM (3-4-6-8-10 m <sup>3</sup> /min)
	Heating : WET	145-170-237-321-406 CFM (4-5-7-9-11 m <sup>3</sup> /min)
Sound Pressure Level	Heating	19-22-30-37-43 dB(A)
	Cooling	19-22-30-37-45 dB(A)
Dimensions H x W x D	Height	11-5/8 Inches (295 mm)
	Width	31-3/8 Inches (799 mm)
	Depth	9-1/8 Inches (232 mm)

*Specification Sub Package 2B*



Refrigerant Pipe Size O.D.	Gas (Low Pressure)	3/8 Inch (9.52 mm)
Field Drainpipe Size O.D.	Liquid (High Pressure)	1/4 Inch (6.35 mm)
Refrigerant Piping	Connection Method	5/8 Inch (15.88 mm)
	Indoor / Outdoor	Flared / Flared
	Cooling - Maximum - DB	90°F (32°C) DB , 73°F (23°C)
	, WB	WB
	Cooling - Minimum - DB	67°F (19°C) DB , 57°F (14°C)
	, WB	WB
	Heating - Maximum - DB	80°F (27°C) DB, 67°F (19°C)
	, WB	WB
	Heating - Minimum - DB	70°F (21°C) DB, 60°F (16°C)
	, WB	WB
Operation Conditions - Indoor Intake Air Temperature	Cooling - Minimum - WB	57°F (14°C) WB
	Heating - Maximum - WB	67°F (19°C) WB
	Heating - Maximum - DB	80°F (27°C) DB, 67°F (19°C)
	, WB	WB
	Cooling - Maximum - DB	90°F (32°C) DB
	Cooling - Maximum - WB	73°F (23°C) WB
	Cooling - Minimum - DB	67°F (19°C) DB
	Heating - Minimum - DB	70°F (21°C) DB
	Heating - Minimum - WB	60°F (16°C) WB
	Cooling - Maximum - DB	115°F (46°C) DB
	, WB	WB
	Heating - Maximum - DB	75°F (24°C) DB, 65°F (18°C)
	, WB	WB
	Heating - Minimum - DB	-4°F (-20°C) DB, -5°F (-21°C)
	, WB	WB
Operation Conditions - Outdoor Intake Air Temperature	Cooling - Maximum - DB	115°F (46°C) DB
	Heating - Maximum - WB	65°F (18°C) WB
	Heating - Minimum - DB	-4°F (-20°C) DB
	Heating - Minimum - WB	-5°F (-21°C) WB
	Cooling - Maximum - WB	115°F (46°C) WB
	Cooling - Minimum - DB	14°F (-10°C) DB
	Heating - Maximum - DB	75°F (24°C) DB
External Finish		Munsell 1.0Y 9.2 / 0.2
Voltage	Indoor - Outdoor S1-S2	AC 208 / 230V
	Indoor - Outdoor S2-S3	DC 12-24V

Specification Sub Package 2B

**ALLEN TOWNSHIP BID SPECIFICATIONS AND CONTRACT DOCUMENTS  
SUPPLY AND INSTALLATION OF DUCTLESS HEAT PUMP/AIR CONDITIONING  
UNITS**

**SPECIFICATIONS FOR UNIT PRICE WORK ITEM**

**FRONT OFFICE (WEST SIDE OF BUILDING)  
ITEM NO. 3 - COMPONENT #3FO HEAT PUMP INDOOR UNIT**

Power Supply	Phase, Cycle, Voltage	1 Phase, 60Hz, 208/230V
	Rated Capacity	9000 Btu/h (2.64 kW)
	Capacity Range	3800 - 12200 Btu/h (1.1 - 3.6 kW)
	Total Input	660 < 205 - 1200 > W (0.7 < 0.2 - 1.2 > kW)
Cooling	Energy Efficiency SEER	21
	Sensible Heat Factor	0.82
	Moisture Removal Pints/H	1.5
	EER	13.6
	Rated Capacity	10900 Btu/h (3.2 kW)
	Capacity Range	4500 - 14100 Btu/h (1.3 - 4.1 kW)
Heating at 47° F	Total Input	760 (255 - 1200) W
	HSPF (Region IV)	10
	COP	4.2
	Maximum Capacity	8700 Btu/h (2.5 kW)
Heating at 17° F	COP	2.76 Btu/Btu
	Total Input	700 W
	Rated Capacity	6600 Btu/h (1.9 kW)
Heating at 5° F	Maximum Capacity	7061 Btu/h (4.8 kW)
Minimum Circuit Ampacity	MCA	1 Ampere
Recommended Fuse/Breaker Size		15 Ampere
Refrigerant	Type	R410A
Fan	Fan Motor - F.L.A.	0.76 F.L.A
	Cooling : DRY	145-170-237-321-399 CFM (4-5-7-9 m <sup>3</sup> /min)
Airflow	Cooling : WET	109-134-201-286-364CFM (3-4-6-8-10 m <sup>3</sup> /min)
	Heating : WET	145-170-233-321-406 CFM (4-5-7-9-11 m <sup>3</sup> /min)
Sound Pressure Level	Cooling	19-22-30-37-43 dB(A)
	Heating	19-22-30-37-43 dB(A)
	Height	11-5/8 Inches (295 mm)
Dimensions H x W x D	Width	31-3/8 Inches (799 mm)
	Depth	9-1/8 Inches (232 mm)
Refrigerant Pipe Size O.D.	Gas (Low Pressure)	3/8 Inch (9.52 mm)

*Specification Sub Package 2c*



Field Drainpipe Size O.D.	Liquid (High Pressure)	1/4 Inch (6.35 mm) 5/8 Inch (15.88 mm)
Refrigerant Piping	Connection Method	Flared / Flared
	Indoor / Outdoor	
	Cooling - Maximum - DB	90°F (32°C) DB , 73°F (23°C) , WB WB
	Cooling - Minimum - DB	67°F (19°C) DB , 57°F (14°C) , WB WB
	Heating - Maximum - DB	80°F (27°C) DB, 67°F (19°C) , WB WB
	Heating - Minimum - DB	70°F (21°C) DB, 60°F (16°C) , WB WB
Operation Conditions - Indoor Intake Air Temperature	Heating - Maximum - DB	80°F (27°C) DB, 67°F (19°C) WB
	Heating - Maximum -	67°F (19°C) WB WB
	Cooling - Minimum - WB	57°F (14°C) WB
	Heating - Minimum - WB	60°F (16°C) WB
	Heating - Minimum - DB	70°F (21°C) DB
	Cooling - Minimum - DB	67°F (19°C) DB
	Cooling - Maximum -WB	73°F (23°C) WB
	Cooling - Maximum - DB	90°F (32°C) DB
	Cooling - Maximum - DB	115°F (46°C) DB , WB
	Heating - Maximum - DB	75°F (24°C) DB, 65°F (18°C) , WB WB
	Heating - Minimum - DB	-4°F (-20°C) DB, -5°F (-21°C) , WB WB
Operation Conditions - Outdoor Intake Air Temperature	Cooling - Maximum -	115°F (46°C) DB WB
	Heating - Minimum - WB	-5°F (-21°C) WB
	Heating - Minimum - DB	-4°F (-20°C) DB
	Heating - Maximum -	65°F (18°C) WB WB
	Cooling - Maximum - DB	115°F (46°C) DB
	Cooling- Minimum - DB	14°F (-10°C) DB
	Heating - Maximum - DB	75°F (24°C) DB
Voltage	Indoor - Outdoor S2-S3	DC 12-24V
External Finish	Indoor - Outdoor S1-S2	AC 208 / 230V Munsell 1.0Y 9.2 / 0.2

Specification Sub Package 2C

**ALLEN TOWNSHIP BID SPECIFICATIONS AND CONTRACT DOCUMENTS  
SUPPLY AND INSTALLATION OF DUCTLESS HEAT PUMP/AIR CONDITIONING  
UNITS**

**SPECIFICATIONS FOR UNIT PRICE WORK ITEM**

**BACK OFFICE (EAST SIDE OF BUILDING)**

**ITEM NO. 3 - COMPONENT #1BO COOLING ONLY OUTDOOR UNIT**

Power Supply	Phase, Cycle, Voltage	1 Phase, 60Hz, 208/230V
	Rated Capacity	22500 Btu/h (6.59 kW)
	Capacity Range	8200 - 31400 BTU/h (2.4 - 9.2 kW)
	Total Input	1800 < 570 - 3580 > W (1.8 < 0.6 - 3.6 > kW)
Cooling	Energy Efficiency SEER	19
	Sensible Heat Factor	0.75
	Moisture Removal	5.1
	Pints/H	
	EER	12.5
Minimum Circuit Ampacity	MCA	1 Ampere
Recommended Fuse/Breaker Size		20 Ampere
Refrigerant	Type	R410A
Fan	Fan Motor - F.L.A.	0.76 F.L.A.
	Cooling : DRY	388 - 469 - 628 - 738 CFM (11-13-17-20 m <sup>3</sup> /min)
Airflow	Cooling : WET	347-420-562-661 CFM (10-12-16 m <sup>3</sup> /min)
Sound Pressure Level	Cooling	34-41- 49-53 dB(A)
	Height	12-13/16 Inches (325 mm)
Dimensions H x W x D	Width	43-5/16 Inches (1,116 mm)
	Depth	9-3/8 Inches (238 mm)
Refrigerant Pipe Size O.D.	Gas (Low Pressure)	5/8 Inch (16 mm)
	Liquid (High Pressure)	3/8 Inch (6.35 mm)
Field Drainpipe Size O.D.		5/8 Inch (15.88 mm)
Refrigerant Piping	Connection Method	Flared / Flared
	Indoor / Outdoor	
	Cooling - Maximum - DB	90°F (32°C) DB , 73°F (23°C) , WB
	Cooling - Minimum - DB	67°F (19°C) DB , 57°F (14°C) , WB
Operation Conditions - Indoor Intake Air Temperature	Cooling - Minimum - WB	57°F (14°C) WB
	Cooling - Minimum - DB	67°F (19°C) DB
	Cooling - Maximum -WB	73°F (23°C) WB

*Specification SubPackage 3A*

	Cooling - Maximum - DB 90°F (32°C) DB
	Cooling - Maximum - DB 115°F (46°C) DB , WB
Operation Conditions - Outdoor	Cooling - Maximum - DB 115°F (46°C) DB
Intake Air Temperature	Cooling - Maximum - 115°F (46°C) DB WB
	Cooling- Minimum - DB 14°F (-10°C) DB
Voltage	Indoor - Outdoor S2-S3 DC 12-24V
	Indoor - Outdoor S1-S2 AC 208 / 230V
External Finish	Munsell 1.0Y 9.2 / 0.2

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Specification Sub Package 3A



**ALLEN TOWNSHIP BID SPECIFICATIONS AND CONTRACT DOCUMENTS  
SUPPLY AND INSTALLATION OF DUCTLESS HEAT PUMP/AIR CONDITIONING  
UNITS**

**SPECIFICATIONS FOR UNIT PRICE WORK ITEM**

**BACK OFFICE (EAST SIDE OF BUILDING)**

**ITEM NO. 3 - COMPONENT #2BO WALL HUNG INDOOR UNIT COOLING**

Power Supply	Phase, Cycle, Voltage	1 Phase, 60Hz, 208/230V
	Rated Capacity	22500 Btu/h (6.59 kW)
	Capacity Range	8200 - 31400 BTU/h (2.4 - 9.2 kW)
	Total Input	1800 < 570 - 3580 > W (1.8 < 0.6 - 3.6 > kW)
Cooling	Energy Efficiency SEER	19
	Sensible Heat Factor	0.75
	Moisture Removal	5.1
	Pints/H	
	EER	12.5
Minimum Circuit Ampacity	MCA	1 Ampere
Recommended Fuse/Breaker Size		20 Ampere
Refrigerant	Type	R410A
Fan	Fan Motor - F.L.A.	0.76 F.L.A
	Cooling : DRY	388 - 469 - 628 - 738 CFM (11-13-17-20 m <sup>3</sup> /min)
Airflow	Cooling : WET	347-420-562-661 CFM (10-12-16 m <sup>3</sup> /min)
Sound Pressure Level	Cooling	34-41- 49-53 dB(A)
	Height	12-13/16 Inches (325 mm)
Dimensions H x W x D	Width	43-5/16 Inches (1,116 mm)
	Depth	9-3/8 Inches (238 mm)
Refrigerant Pipe Size O.D.	Gas (Low Pressure)	5/8 Inch (16 mm)
	Liquid (High Pressure)	3/8 Inch (6.35 mm)
Field Drainpipe Size O.D.		5/8 Inch (15.88 mm)
Refrigerant Piping	Connection Method	Flared / Flared
	Indoor / Outdoor	
	Cooling - Maximum - DB	90°F (32°C) DB , 73°F (23°C) , WB
	Cooling - Minimum - DB	67°F (19°C) DB , 57°F (14°C) , WB
Operation Conditions - Indoor Intake Air Temperature	Cooling - Minimum - WB	57°F (14°C) WB
	Cooling - Minimum - DB	67°F (19°C) DB
	Cooling - Maximum -WB	73°F (23°C) WB
	Cooling - Maximum - DB	90°F (32°C) DB
Operation Conditions - Outdoor	Cooling - Maximum - DB	115°F (46°C) DB

*Specification Subpackage 3B*

Intake Air Temperature	, WB
	Cooling - Maximum - DB 115°F (46°C) DB
	Cooling - Maximum - WB 115°F (46°C) DB
	Cooling- Minimum - DB 14°F (-10°C) DB
Voltage	Indoor - Outdoor S2-S3 DC 12-24V
	Indoor - Outdoor S1-S2 AC 208 / 230V
External Finish	Munsell 1.0Y 9.2 / 0.2

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Specification Sub Package 3B