



**MECHANICAL &
ENERGY SERVICES**

Heating, Air Conditioning, Piping, Sheetmetal, & Energy Services.

Bid Number – AN -2022-23#2

Description – Certificate of Insurance

Project location - 11 School Rd , Andover CT 06232

By – USA Mechanical & Engery Services
15-D International Drive
East Granby ,CT 06026

Date - 6/8/23

ACORD™

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

5/26/2023

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer any rights to the certificate holder in lieu of such endorsement(s).

| | | | |
|---|--|--|--|
| PRODUCER USI Insurance Services LLC-CL 3190 Fairview Park Drive Suite 400 Falls Church, VA 22042-4546 703 698-0788 | | CONTACT NAME: Madison Klein PHONE (A/C, No, Ext): FAX (A/C, No): 610 362-8377 E-MAIL ADDRESS: usi.certrequest@usi.com | |
| INSURED USA Mechanical & Energy Services LLC 15D international Drive East Granby, CT 06026 | | INSURER(S) AFFORDING COVERAGE INSURER A : National Fire Insurance Co. of Hartford INSURER B : Continental Insurance Company INSURER C : American Casualty Company of Reading PA INSURER D : INSURER E : INSURER F : | |
| | | NAIC # 20478 35289 20427 | |

COVERAGES

CERTIFICATE NUMBER:

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

| INSR LTR | TYPE OF INSURANCE | ADDL INSR | SUBR WVD | POLICY NUMBER | POLICY EFF (MM/DD/YYYY) | POLICY EXP (MM/DD/YYYY) | LIMITS |
|----------|---|-----------|----------|---------------|-------------------------|-------------------------|---|
| A | <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER: | X | X | 7037051765 | 04/01/2023 | 04/01/2024 | EACH OCCURRENCE \$1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$100,000 MED EXP (Any one person) \$15,000 PERSONAL & ADV INJURY \$1,000,000 GENERAL AGGREGATE \$2,000,000 PRODUCTS - COMP/OP AGG \$2,000,000 \$ |
| A | <input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS NON-OWNED AUTOS ONLY <input checked="" type="checkbox"/> HIRED AUTOS ONLY | X | X | 7037050034 | 04/01/2023 | 04/01/2024 | COMBINED SINGLE LIMIT (Ea accident) \$1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$ |
| B | <input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$10,000 | | | 7037052558 | 04/01/2023 | 04/01/2024 | EACH OCCURRENCE \$6,000,000 AGGREGATE \$6,000,000 \$ |
| C | WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below | | N/A | 7037051488 | 04/01/2023 | 04/01/2024 | <input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$1,000,000 E.L. DISEASE - EA EMPLOYEE \$1,000,000 E.L. DISEASE - POLICY LIMIT \$1,000,000 |

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

The holder is considered an additional insured on a primary and non-contributory basis with regards to the auto and general liability when required by a written contract. Waiver of subrogation is in favor of the holder when required by a written contract and allowed by state law. 30 days notice of cancellation applies.

(See Attached Descriptions)

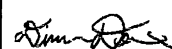
CERTIFICATE HOLDER

CANCELLATION

Town of Andover
 17 School Rd
 Andover, CT 06232

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE



DESCRIPTIONS (Continued from Page 1)

The Town of Andover is considered an additional insured and shall be given 30 days' notice of cancellation.

**Contractors' General Liability Extension Endorsement****1. ADDITIONAL INSURED**

- a. **WHO IS AN INSURED** is amended to include as an **Insured** any person or organization described in paragraphs **A. through H.** below whom a **Named Insured** is required to add as an additional insured on this **Coverage Part** under a written contract or written agreement, provided such contract or agreement:

(1) is currently in effect or becomes effective during the term of this **Coverage Part**; and

(2) was executed prior to:

(a) the **bodily injury** or **property damage**; or

(b) the offense that caused the **personal and advertising injury**,

for which such additional insured seeks coverage.

- b. However, subject always to the terms and conditions of this policy, including the limits of insurance, the Insurer will not provide such additional insured with:

(1) a higher limit of insurance than required by such contract or agreement; or

(2) coverage broader than required by such contract or agreement, and in no event broader than that described by the applicable paragraph **A. through H.** below.

Any coverage granted by this endorsement shall apply only to the extent permissible by law.

A. Controlling Interest

Any person or organization with a controlling interest in a **Named Insured**, but only with respect to such person or organization's liability for **bodily injury**, **property damage** or **personal and advertising injury** arising out of:

1. such person or organization's financial control of a **Named Insured**; or

2. premises such person or organization owns, maintains or controls while a **Named Insured** leases or occupies such premises;

provided that the coverage granted by this paragraph does not apply to structural alterations, new construction or demolition operations performed by, on behalf of, or for such additional insured.

B. Co-owner of Insured Premises

A co-owner of a premises co-owned by a **Named Insured** and covered under this insurance but only with respect to such co-owner's liability for **bodily injury**, **property damage** or **personal and advertising injury** as co-owner of such premises.

C. Lessor of Equipment

Any person or organization from whom a **Named Insured** leases equipment, but only with respect to liability for **bodily injury**, **property damage** or **personal and advertising injury** caused, in whole or in part, by the **Named Insured's** maintenance, operation or use of such equipment, provided that the **occurrence** giving rise to such **bodily injury**, **property damage** or the offense giving rise to such **personal and advertising injury** takes place prior to the termination of such lease.

D. Lessor of Land

Any person or organization from whom a **Named Insured** leases land but only with respect to liability for **bodily injury**, **property damage** or **personal and advertising injury** arising out of the ownership, maintenance or use of such land, provided that the **occurrence** giving rise to such **bodily injury**, **property damage** or the offense giving rise to such **personal and advertising injury** takes place prior to the termination of such lease. The

**Contractors' General Liability Extension Endorsement**

coverage granted by this paragraph does not apply to structural alterations, new construction or demolition operations performed by, on behalf of, or for such additional insured.

E. Lessor of Premises

An owner or lessor of premises leased to the **Named Insured**, or such owner or lessor's real estate manager, but only with respect to liability for **bodily injury, property damage or personal and advertising injury** arising out of the ownership, maintenance or use of such part of the premises leased to the **Named Insured**, and provided that the **occurrence** giving rise to such **bodily injury or property damage**, or the offense giving rise to such **personal and advertising injury**, takes place prior to the termination of such lease. The coverage granted by this paragraph does not apply to structural alterations, new construction or demolition operations performed by, on behalf of, or for such additional insured.

F. Mortgagee, Assignee or Receiver

A mortgagee, assignee or receiver of premises but only with respect to such mortgagee, assignee or receiver's liability for **bodily injury, property damage or personal and advertising injury** arising out of the **Named Insured's** ownership, maintenance, or use of a premises by a **Named Insured**.

The coverage granted by this paragraph does not apply to structural alterations, new construction or demolition operations performed by, on behalf of, or for such additional insured.

G. State or Governmental Agency or Subdivision or Political Subdivisions – Permits

A state or governmental agency or subdivision or political subdivision that has issued a permit or authorization but only with respect to such state or governmental agency or subdivision or political subdivision's liability for **bodily injury, property damage or personal and advertising injury** arising out of:

1. the following hazards in connection with premises a **Named Insured** owns, rents, or controls and to which this insurance applies:
 - a. the existence, maintenance, repair, construction, erection, or removal of advertising signs, awnings, canopies, cellar entrances, coal holes, driveways, manholes, marquees, hoistaway openings, sidewalk vaults, street banners, or decorations and similar exposures; or
 - b. the construction, erection, or removal of elevators; or
 - c. the ownership, maintenance or use of any elevators covered by this insurance; or
2. the permitted or authorized operations performed by a **Named Insured** or on a **Named Insured's** behalf.

The coverage granted by this paragraph does not apply to:

- a. **Bodily injury, property damage or personal and advertising injury** arising out of operations performed for the state or governmental agency or subdivision or political subdivision; or
- b. **Bodily injury or property damage** included within the **products-completed operations hazard**.

With respect to this provision's requirement that additional insured status must be requested under a written contract or agreement, the Insurer will treat as a written contract any governmental permit that requires the **Named Insured** to add the governmental entity as an additional insured.

H. Trade Show Event Lessor

1. With respect to a **Named Insured's** participation in a trade show event as an exhibitor, presenter or displayer, any person or organization whom the **Named Insured** is required to include as an additional insured, but only with respect to such person or organization's liability for **bodily injury, property damage or personal and advertising injury** caused by:



**Contractors' General Liability Extension Endorsement**

- a. the **Named Insured's** acts or omissions; or
 - b. the acts or omissions of those acting on the **Named Insured's** behalf,
in the performance of the **Named Insured's** ongoing operations at the trade show event premises during the trade show event.
 2. The coverage granted by this paragraph does not apply to **bodily injury** or **property damage** included within the **products-completed operations hazard**.
- 2. ADDITIONAL INSURED - PRIMARY AND NON-CONTRIBUTORY TO ADDITIONAL INSURED'S INSURANCE**
- The **Other Insurance** Condition in the **COMMERCIAL GENERAL LIABILITY CONDITIONS** Section is amended to add the following paragraph:
- If the **Named Insured** has agreed in writing in a contract or agreement that this insurance is primary and non-contributory relative to an additional insured's own insurance, then this insurance is primary, and the Insurer will not seek contribution from that other insurance. For the purpose of this Provision 2., the additional insured's own insurance means insurance on which the additional insured is a named insured. Otherwise, and notwithstanding anything to the contrary elsewhere in this Condition, the insurance provided to such person or organization is excess of any other insurance available to such person or organization.
- 3. BODILY INJURY – EXPANDED DEFINITION**
- Under **DEFINITIONS**, the definition of **bodily injury** is deleted and replaced by the following:
- Bodily injury** means physical injury, sickness or disease sustained by a person, including death, humiliation, shock, mental anguish or mental injury sustained by that person at any time which results as a consequence of the physical injury, sickness or disease.
- 4. BROAD KNOWLEDGE OF OCCURRENCE/ NOTICE OF OCCURRENCE**
- Under **CONDITIONS**, the condition entitled **Duties in The Event of Occurrence, Offense, Claim or Suit** is amended to add the following provisions:
- A. BROAD KNOWLEDGE OF OCCURRENCE**
- The **Named Insured** must give the Insurer or the Insurer's authorized representative notice of an **occurrence**, offense or **claim** only when the **occurrence**, offense or **claim** is known to a natural person **Named Insured**, to a partner, executive officer, manager or member of a **Named Insured**, or an **employee** designated by any of the above to give such notice.
- B. NOTICE OF OCCURRENCE**
- The **Named Insured's** rights under this **Coverage Part** will not be prejudiced if the **Named Insured** fails to give the Insurer notice of an **occurrence**, offense or **claim** and that failure is solely due to the **Named Insured's** reasonable belief that the **bodily injury** or **property damage** is not covered under this **Coverage Part**. However, the **Named Insured** shall give written notice of such **occurrence**, offense or **claim** to the Insurer as soon as the **Named Insured** is aware that this insurance may apply to such **occurrence**, offense or **claim**.
- 5. BROAD NAMED INSURED**
- WHO IS AN INSURED** is amended to delete its Paragraph 3. in its entirety and replace it with the following:
3. Pursuant to the limitations described in Paragraph 4. below, any organization in which a **Named Insured** has management control:
 - a. on the effective date of this **Coverage Part**; or

**Contractors' General Liability Extension Endorsement**

b. by reason of a **Named Insured** creating or acquiring the organization during the **policy period**,

qualifies as a **Named Insured**, provided that there is no other similar liability insurance, whether primary, contributory, excess, contingent or otherwise, which provides coverage to such organization, or which would have provided coverage but for the exhaustion of its limit, and without regard to whether its coverage is broader or narrower than that provided by this insurance.

But this **BROAD NAMED INSURED** provision does not apply to:

(a) any partnership, limited liability company or joint venture; or

(b) any organization for which coverage is excluded by another endorsement attached to this **Coverage Part**.

For the purpose of this provision, management control means:

A. owning interests representing more than 50% of the voting, appointment or designation power for the selection of a majority of the Board of Directors of a corporation; or

B. having the right, pursuant to a written trust agreement, to protect, control the use of, encumber or transfer or sell property held by a trust.

4. With respect to organizations which qualify as **Named Insureds** by virtue of Paragraph 3. above, this insurance does not apply to:

a. **bodily injury** or **property damage** that first occurred prior to the date of management control, or that first occurs after management control ceases; nor

b. **personal or advertising injury** caused by an offense that first occurred prior to the date of management control or that first occurs after management control ceases.

5. The insurance provided by this **Coverage Part** applies to **Named Insureds** when trading under their own names or under such other trading names or doing-business-as names (dba) as any **Named Insured** should choose to employ.

6. BROADENED LIABILITY COVERAGE FOR DAMAGE TO YOUR PRODUCT AND YOUR WORK

A. Under **COVERAGES, Coverage A – Bodily Injury and Property Damage Liability**, the paragraph entitled **Exclusions** is amended to delete exclusions k. and l. and replace them with the following:

This insurance does not apply to:

k. Damage to Your Product

Property damage to your product arising out of it, or any part of it except when caused by or resulting from:

(1) fire;

(2) smoke;

(3) collapse; or

(4) explosion.

l. Damage to Your Work

Property damage to your work arising out of it, or any part of it and included in the **products-completed operations hazard**.

This exclusion does not apply:

(1) If the damaged work, or the work out of which the damage arises, was performed on the **Named Insured's** behalf by a subcontractor; or

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**Contractors' General Liability Extension Endorsement**

(2) If the cause of loss to the damaged work arises as a result of:

- (a) fire;
- (b) smoke;
- (c) collapse; or
- (d) explosion.

B. The following paragraph is added to LIMITS OF INSURANCE:

Subject to 5. above, \$100,000 is the most the Insurer will pay under **Coverage A** for the sum of **damages** arising out of any one **occurrence** because of **property damage to your product and your work** that is caused by fire, smoke, collapse or explosion and is included within the **product-completed operations hazard**. This sublimit does not apply to **property damage to your work** if the damaged work, or the work out of which the damage arises, was performed on the **Named Insured's** behalf by a subcontractor.

C. This Broadened Liability Coverage For Damage To Your Product And Your Work Provision does not apply if an endorsement of the same name is attached to this policy.

7. CONTRACTUAL LIABILITY – RAILROADS

With respect to operations performed within 50 feet of railroad property, the definition of **insured contract** is replaced by the following:

Insured Contract means:

- a. A contract for a lease of premises. However, that portion of the contract for a lease of premises that indemnifies any person or organization for damage by fire to premises while rented to a **Named Insured** or temporarily occupied by a **Named Insured** with permission of the owner is not an **insured contract**;
- b. A sidetrack agreement;
- c. Any easement or license agreement;
- d. An obligation, as required by ordinance, to indemnify a municipality, except in connection with work for a municipality;
- e. An elevator maintenance agreement;
- f. That part of any other contract or agreement pertaining to the **Named Insured's** business (including an indemnification of a municipality in connection with work performed for a municipality) under which the **Named Insured** assumes the tort liability of another party to pay for **bodily injury** or **property damage** to a third person or organization. Tort liability means a liability that would be imposed by law in the absence of any contract or agreement.

Paragraph **f.** does not include that part of any contract or agreement:

(1) That indemnifies an architect, engineer or surveyor for injury or damage arising out of:

- (a) Preparing, approving or failing to prepare or approve maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or
- (b) Giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage;

(2) Under which the **Insured**, if an architect, engineer or surveyor, assumes liability for an injury or damage arising out of the insured's rendering or failure to render professional services, including those listed in (1) above and supervisory, inspection, architectural or engineering activities.

8. ELECTRONIC DATA LIABILITY

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Nat'l Fire Ins Co of Hartford

Insured Name: USA MECHANICAL & ENERGY SERVICES LLC

Policy No: **7037051765**

Endorsement No:

Effective Date: **4/1/2023**

**Contractors' General Liability Extension Endorsement**

- A. Under **COVERAGES, Coverage A – Bodily Injury and Property Damage Liability**, the paragraph entitled **Exclusions** is amended to delete exclusion **p. Electronic Data** and replace it with the following:

This insurance does not apply to:

p. Access Or Disclosure Of Confidential Or Personal Information And Data-related Liability

Damages arising out of:

- (1) any access to or disclosure of any person's or organization's confidential or personal information, including patents, trade secrets, processing methods, customer lists, financial information, credit card information, health information or any other type of nonpublic information; or
- (2) the loss of, loss of use of, damage to, corruption of, inability to access, or inability to manipulate **electronic data** that does not result from physical injury to tangible property.

However, unless Paragraph (1) above applies, this exclusion does not apply to **damages** because of **bodily injury**.

This exclusion applies even if damages are claimed for notification costs, credit monitoring expenses, forensic expenses, public relation expenses or any other loss, cost or expense incurred by the **Named Insured** or others arising out of that which is described in Paragraph (1) or (2) above.

- B. The following paragraph is added to **LIMITS OF INSURANCE**:

Subject to 5. above, \$100,000 is the most the Insurer will pay under **Coverage A** for all **damages** arising out of any one **occurrence** because of **property damage** that results from physical injury to tangible property and arises out of **electronic data**.

- C. The following definition is added to **DEFINITIONS**:

Electronic data means information, facts or programs stored as or on, created or used on, or transmitted to or from computer software (including systems and applications software), hard or floppy disks, CD-ROMS, tapes, drives, cells, data processing devices or any other media which are used with electronically controlled equipment.

- D. For the purpose of the coverage provided by this **ELECTRONIC DATA LIABILITY** Provision, the definition of **property damage** in **DEFINITIONS** is replaced by the following:

Property damage means:

- a. Physical injury to tangible property, including all resulting loss of use of that property. All such loss of use shall be deemed to occur at the time of the physical injury that caused it;
- b. Loss of use of tangible property that is not physically injured. All such loss of use shall be deemed to occur at the time of the **occurrence** that caused it; or
- c. Loss of, loss of use of, damage to, corruption of, inability to access, or inability to properly manipulate **electronic data**, resulting from physical injury to tangible property. All such loss of **electronic data** shall be deemed to occur at the time of the **occurrence** that caused it.

For the purposes of this insurance, **electronic data** is not tangible property.

- E. If Electronic Data Liability is provided at a higher limit by another endorsement attached to this policy, then the \$100,000 limit provided by this **ELECTRONIC DATA LIABILITY** Provision is part of, and not in addition to, that higher limit.

9. ESTATES, LEGAL REPRESENTATIVES, AND SPOUSES

The estates, heirs, legal representatives and **spouses** of any natural person **Insured** shall also be insured under this policy; provided, however, coverage is afforded to such estates, heirs, legal representatives, and **spouses** only for



**Contractors' General Liability Extension Endorsement**

claims arising solely out of their capacity or status as such and, in the case of a **spouse**, where such **claim** seeks **damages** from marital community property, jointly held property or property transferred from such natural person **Insured** to such **spouse**. No coverage is provided for any act, error or omission of an estate, heir, legal representative, or **spouse** outside the scope of such person's capacity or status as such, provided however that the **spouse** of a natural person **Named Insured** and the **spouses** of members or partners of joint venture or partnership **Named Insureds** are **Insureds** with respect to such **spouses'** acts, errors or omissions in the conduct of the **Named Insured's** business.

10. EXPECTED OR INTENDED INJURY – EXCEPTION FOR REASONABLE FORCE

Under **COVERAGES, Coverage A – Bodily Injury and Property Damage Liability**, the paragraph entitled **Exclusions** is amended to delete the exclusion entitled **Expected or Intended Injury** and replace it with the following:

This insurance does not apply to:

Expected or Intended Injury

Bodily injury or **property damage** expected or intended from the standpoint of the **Insured**. This exclusion does not apply to **bodily injury** or **property damage** resulting from the use of reasonable force to protect persons or property.

11. GENERAL AGGREGATE LIMITS OF INSURANCE - PER PROJECT

- A. For each construction project away from premises the **Named Insured** owns or rents, a separate Construction Project General Aggregate Limit, equal to the amount of the General Aggregate Limit shown in the Declarations, is the most the Insurer will pay for the sum of:

1. All **damages** under **Coverage A**, except **damages** because of **bodily injury** or **property damage** included in the **products-completed operations hazard**; and
2. All medical expenses under **Coverage C**,

that arise from **occurrences** or accidents which can be attributed solely to ongoing operations at that construction project. Such payments shall not reduce the General Aggregate Limit shown in the Declarations, nor the Construction Project General Aggregate Limit of any other construction project.

B. All:

1. **Damages** under **Coverage B**, regardless of the number of locations or construction projects involved;
2. **Damages** under **Coverage A**, caused by **occurrences** which cannot be attributed solely to ongoing operations at a single construction project, except **damages** because of **bodily injury** or **property damage** included in the **products-completed operations hazard**; and
3. Medical expenses under **Coverage C** caused by accidents which cannot be attributed solely to ongoing operations at a single construction project,

will reduce the General Aggregate Limit shown in the Declarations.

- C. The limits shown in the Declarations for Each Occurrence, for Damage To Premises Rented To You and for Medical Expense continue to apply, but will be subject to either the Construction Project General Aggregate Limit or the General Aggregate Limit shown in the Declarations, depending on whether the **occurrence** can be attributed solely to ongoing operations at a particular construction project.
- D. When coverage for liability arising out of the **products-completed operations hazard** is provided, any payments for **damages** because of **bodily injury** or **property damage** included in the **products-completed operations hazard** will reduce the Products-Completed Operations Aggregate Limit shown in the Declarations, regardless of the number of projects involved.



CNA PARAMOUNT

Contractors' General Liability Extension Endorsement

- E. If a single construction project away from premises owned by or rented to the **Insured** has been abandoned and then restarted, or if the authorized contracting parties deviate from plans, blueprints, designs, specifications or timetables, the project will still be deemed to be the same construction project.
- F. The provisions of **LIMITS OF INSURANCE** not otherwise modified by this endorsement shall continue to apply as stipulated.

12. IN REM ACTIONS

A quasi in rem action against any vessel owned or operated by or for the **Named Insured**, or chartered by or for the **Named Insured**, will be treated in the same manner as though the action were in personam against the **Named Insured**.

13. INCIDENTAL HEALTH CARE MALPRACTICE COVERAGE

Solely with respect to **bodily injury** that arises out of a **health care incident**:

- A. Under **COVERAGES, Coverage A – Bodily Injury and Property Damage Liability**, the paragraph entitled **Insuring Agreement** is amended to replace Paragraphs 1.b.(1) and 1.b.(2) with the following:

- b. This insurance applies to **bodily injury** provided that the professional health care services are incidental to the **Named Insured's** primary business purpose, and only if:

- (1) such **bodily injury** is caused by an **occurrence** that takes place in the **coverage territory**.
- (2) the **bodily injury** first occurs during the **policy period**. All **bodily injury** arising from an **occurrence** will be deemed to have occurred at the time of the first act, error, or omission that is part of the **occurrence**; and

- B. Under **COVERAGES, Coverage A – Bodily Injury and Property Damage Liability**, the paragraph entitled **Exclusions** is amended to:

- i. add the following to the **Employers Liability** exclusion:

This exclusion applies only if the **bodily injury** arising from a **health care incident** is covered by other liability insurance available to the **Insured** (or which would have been available but for exhaustion of its limits).

- ii. delete the exclusion entitled **Contractual Liability** and replace it with the following:

This insurance does not apply to:

Contractual Liability

the **Insured's** actual or alleged liability under any oral or written contract or agreement, including but not limited to express warranties or guarantees.

- iii. add the following additional exclusions:

This insurance does not apply to:

Discrimination

any actual or alleged discrimination, humiliation or harassment, including but not limited to **claims** based on an individual's race, creed, color, age, gender, national origin, religion, disability, marital status or sexual orientation.

Dishonesty or Crime

Any actual or alleged dishonest, criminal or malicious act, error or omission.

Medicare/Medicaid Fraud

CNA74705XX (1-15)

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Nat'l Fire Ins Co of Hartford

Insured Name: USA MECHANICAL & ENERGY SERVICES LLC

Policy No: 7037051765

Endorsement No:

Effective Date: 4/1/2023

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**Contractors' General Liability Extension Endorsement**

any actual or alleged violation of law with respect to Medicare, Medicaid, Tricare or any similar federal, state or local governmental program.

Services Excluded by Endorsement

Any **health care incident** for which coverage is excluded by endorsement.

C. DEFINITIONS is amended to:**i.** add the following definitions:

Health care incident means an act, error or omission by the **Named Insured's employees** or **volunteer workers** in the rendering of:

a. professional health care services on behalf of the **Named Insured** or

b. Good Samaritan services rendered in an emergency and for which no payment is demanded or received.

Professional health care services means any health care services or the related furnishing of food, beverages, medical supplies or appliances by the following providers in their capacity as such but solely to the extent they are duly licensed as required:

- a.** Physician;
- b.** Nurse;
- c.** Nurse practitioner;
- d.** Emergency medical technician;
- e.** Paramedic;
- f.** Dentist;
- g.** Physical therapist;
- h.** Psychologist;
- i.** Speech therapist;
- j.** Other allied health professional; or

Professional health care services does not include any services rendered in connection with human clinical trials or product testing.

ii. delete the definition of **occurrence** and replace it with the following:

Occurrence means a **health care incident**. All acts, errors or omissions that are logically connected by any common fact, circumstance, situation, transaction, event, advice or decision will be considered to constitute a single **occurrence**;

iii. amend the definition of **Insured** to:**a.** add the following:

the **Named Insured's employees** are **Insureds** with respect to:

- (1) **bodily injury** to a co-employee while in the course of the co-employee's employment by the **Named Insured** or while performing duties related to the conduct of the **Named Insured's** business; and

**Contractors' General Liability Extension Endorsement**

- (2) **bodily injury** to a **volunteer worker** while performing duties related to the conduct of the **Named Insured's** business;

when such **bodily injury** arises out of a **health care incident**.

the **Named Insured's** **volunteer workers** are **Insureds** with respect to:

- (1) **bodily injury** to a **co-volunteer worker** while performing duties related to the conduct of the **Named Insured's** business; and

- (2) **bodily injury** to an **employee** while in the course of the **employee's** employment by the **Named Insured** or while performing duties related to the conduct of the **Named Insured's** business;

when such **bodily injury** arises out of a **health care incident**.

- b. delete Subparagraphs (a), (b), (c) and (d) of Paragraph 2.a.(1) of **WHO IS AN INSURED**.

- D. The **Other Insurance** condition is amended to delete Paragraph b.(1) in its entirety and replace it with the following:

Other Insurance

b. **Excess Insurance**

- (1) To the extent this insurance applies, it is excess over any other insurance, self insurance or risk transfer instrument, whether primary, excess, contingent or on any other basis, except for insurance purchased specifically by the **Named Insured** to be excess of this coverage.

14. JOINT VENTURES / PARTNERSHIP / LIMITED LIABILITY COMPANIES

WHO IS AN INSURED is amended to delete its last paragraph and replace it with the following:

No person or organization is an **Insured** with respect to the conduct of any current or past partnership, joint venture or limited liability company that is not shown as a **Named Insured** in the Declarations, except that if the **Named Insured** was a joint venturer, partner, or member of a limited liability company and such joint venture, partnership or limited liability company terminated prior to or during the **policy period**, such **Named Insured** is an **Insured** with respect to its interest in such joint venture, partnership or limited liability company but only to the extent that:

- a. any offense giving rise to **personal and advertising injury** occurred prior to such termination date, and the **personal and advertising injury** arising out of such offense first occurred after such termination date;
- b. the **bodily injury** or **property damage** first occurred after such termination date; and
- c. there is no other valid and collectible insurance purchased specifically to insure the partnership, joint venture or limited liability company; and

If the joint venture, partnership or limited liability company is or was insured under a **consolidated (wrap-up) insurance program**, then such insurance will always be considered valid and collectible for the purpose of paragraph c. above. But this provision will not serve to exclude **bodily injury**, **property damage** or **personal and advertising injury** that would otherwise be covered under the **Contractors General Liability Extension Endorsement** provision entitled **WRAP-UP EXTENSION: OCIP, CCIP, OR CONSOLIDATED (WRAP-UP) INSURANCE PROGRAMS**. Please see that provision for the definition of **consolidated (wrap-up) insurance program**.

15. LEGAL LIABILITY – DAMAGE TO PREMISES / ALIENATED PREMISES / PROPERTY IN THE NAMED INSURED'S CARE, CUSTODY OR CONTROL

- A. Under **COVERAGES, Coverage A – Bodily Injury and Property Damage Liability**, the paragraph entitled **Exclusions** is amended to delete exclusion j. **Damage to Property** in its entirety and replace it with the following:

This insurance does not apply to:





Contractors' General Liability Extension Endorsement

j. **Damage to Property****Property damage to:**

- (1) Property the **Named Insured** owns, rents, or occupies, including any costs or expenses incurred by you, or any other person, organization or entity, for repair, replacement, enhancement, restoration or maintenance of such property for any reason, including prevention of injury to a person or damage to another's property;
- (2) Premises the **Named Insured** sells, gives away or abandons, if the **property damage** arises out of any part of those premises;
- (3) Property loaned to the **Named Insured**;
- (4) Personal property in the care, custody or control of the **Insured**;
- (5) That particular part of real property on which the **Named Insured** or any contractors or subcontractors working directly or indirectly on the **Named Insured's** behalf are performing operations, if the **property damage** arises out of those operations; or
- (6) That particular part of any property that must be restored, repaired or replaced because **your work** was incorrectly performed on it.

Paragraphs (1), (3) and (4) of this exclusion do not apply to **property damage** (other than damage by fire) to premises rented to the **Named Insured** or temporarily occupied by the **Named Insured** with the permission of the owner, nor to the contents of premises rented to the **Named Insured** for a period of 7 or fewer consecutive days. A separate limit of insurance applies to Damage To Premises Rented To You as described in **LIMITS OF INSURANCE**.

Paragraph (2) of this exclusion does not apply if the premises are **your work**.

Paragraphs (3), (4), (5) and (6) of this exclusion do not apply to liability assumed under a sidetrack agreement.

Paragraph (6) of this exclusion does not apply to **property damage** included in the **products-completed operations hazard**.

Paragraphs (3) and (4) of this exclusion do not apply to **property damage** to:

- i. tools, or equipment the **Named Insured** borrows from others, nor
- ii. other personal property of others in the **Named Insured's** care, custody or control while being used in the **Named Insured's** operations away from any **Named Insured's** premises.

However, the coverage granted by this exception to Paragraphs (3) and (4) does not apply to:

- a. property at a job site awaiting or during such property's installation, fabrication, or erection;
- b. property that is **mobile equipment** leased by an **Insured**;
- c. property that is an **auto**, aircraft or watercraft;
- d. property in transit; or
- e. any portion of **property damage** for which the **Insured** has available other valid and collectible insurance, or would have such insurance but for exhaustion of its limits, or but for application of one of its exclusions.

A separate limit of insurance and deductible apply to such property of others. See **LIMITS OF INSURANCE** as amended below.



Contractors' General Liability Extension Endorsement

- B. Under **COVERAGES, Coverage A – Bodily Injury and Property Damage Liability**, the paragraph entitled **Exclusions** is amended to delete its last paragraph and replace it with the following:

Exclusions **c.** through **n.** do not apply to damage by fire to premises while rented to a **Named Insured** or temporarily occupied by a **Named Insured** with permission of the owner, nor to damage to the contents of premises rented to a **Named Insured** for a period of 7 or fewer consecutive days.

A separate limit of insurance applies to this coverage as described in **LIMITS OF INSURANCE**.

- C. The following paragraph is added to **LIMITS OF INSURANCE**:

Subject to **5.** above, \$25,000 is the most the Insurer will pay under **Coverage A** for **damages** arising out of any one **occurrence** because of the sum of all **property damage** to borrowed tools or equipment, and to other personal property of others in the **Named Insured's** care, custody or control, while being used in the **Named Insured's** operations away from any **Named Insured's** premises. The Insurer's obligation to pay such **property damage** does not apply until the amount of such **property damage** exceeds \$1,000. The Insurer has the right but not the duty to pay any portion of this \$1,000 in order to effect settlement. If the Insurer exercises that right, the **Named Insured** will promptly reimburse the Insurer for any such amount.

- D. Paragraph **6.**, Damage To Premises Rented To You Limit, of **LIMITS OF INSURANCE** is deleted and replaced by the following:

6. Subject to Paragraph **5.** above, (the Each Occurrence Limit), the Damage To Premises Rented To You Limit is the most the Insurer will pay under **Coverage A** for **damages** because of **property damage** to any one premises while rented to the **Named Insured** or temporarily occupied by the **Named Insured** with the permission of the owner, including contents of such premises rented to the **Named Insured** for a period of 7 or fewer consecutive days. The Damage To Premises Rented To You Limit is the greater of:

a. \$500,000; or

b. The Damage To Premises Rented To You Limit shown in the Declarations.

- E. Paragraph **4.b.(1)(a)(ii)** of the **Other Insurance** Condition is deleted and replaced by the following:

- (ii) That is property insurance for premises rented to the **Named Insured**, for premises temporarily occupied by the **Named Insured** with the permission of the owner; or for personal property of others in the **Named Insured's** care, custody or control;

16. LIQUOR LIABILITY

Under **COVERAGES, Coverage A – Bodily Injury and Property Damage Liability**, the paragraph entitled **Exclusions** is amended to delete the exclusion entitled **Liquor Liability**.

This **LIQUOR LIABILITY** provision does not apply to any person or organization who otherwise qualifies as an additional insured on this **Coverage Part**.

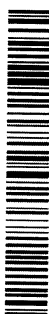
17. MEDICAL PAYMENTS

- A. **LIMITS OF INSURANCE** is amended to delete Paragraph **7.** (the Medical Expense Limit) and replace it with the following:

7. Subject to Paragraph **5.** above (the Each Occurrence Limit), the Medical Expense Limit is the most the Insurer will pay under **Coverage C – Medical Payments** for all medical expenses because of **bodily injury** sustained by any one person. The Medical Expense Limit is the greater of:

(1) \$15,000 unless a different amount is shown here: \$N,NNN,NNN,NNN; or

(2) the amount shown in the Declarations for Medical Expense Limit.





CNA PARAMOUNT Contractors' General Liability Extension Endorsement

B. Under **COVERAGES**, the **Insuring Agreement** of **Coverage C – Medical Payments** is amended to replace Paragraph 1.a.(3)(b) with the following:

(b) The expenses are incurred and reported to the Insurer within three years of the date of the accident; and

18. NON-OWNED AIRCRAFT

Under **COVERAGES**, **Coverage A – Bodily Injury and Property Damage Liability**, the paragraph entitled **Exclusions** is amended as follows:

The exclusion entitled **Aircraft, Auto or Watercraft** is amended to add the following:

This exclusion does not apply to an aircraft not owned by any **Named Insured**, provided that:

1. the pilot in command holds a currently effective certificate issued by the duly constituted authority of the United States of America or Canada, designating that person as a commercial or airline transport pilot;
2. the aircraft is rented with a trained, paid crew to the **Named Insured**; and
3. the aircraft is not being used to carry persons or property for a charge.

19. NON-OWNED WATERCRAFT

Under **COVERAGES**, **Coverage A – Bodily Injury and Property Damage Liability**, the paragraph entitled **Exclusions** is amended to delete subparagraph (2) of the exclusion entitled **Aircraft, Auto or Watercraft**, and replace it with the following.

This exclusion does not apply to:

(2) a watercraft that is not owned by any **Named Insured**, provided the watercraft is:

- (a) less than 75 feet long; and
- (b) not being used to carry persons or property for a charge.

20. PERSONAL AND ADVERTISING INJURY –DISCRIMINATION OR HUMILIATION

A. Under **DEFINITIONS**, the definition of **personal and advertising injury** is amended to add the following tort:

Discrimination or humiliation that results in injury to the feelings or reputation of a natural person.

B. Under **COVERAGES**, **Coverage B – Personal and Advertising Injury Liability**, the paragraph entitled **Exclusions** is amended to:

1. delete the Exclusion entitled **Knowing Violation Of Rights Of Another** and replace it with the following:

This insurance does not apply to:

Knowing Violation of Rights of Another

Personal and advertising injury caused by or at the direction of the **Insured** with the knowledge that the act would violate the rights of another and would inflict **personal and advertising injury**. This exclusion shall not apply to discrimination or humiliation that results in injury to the feelings or reputation of a natural person, but only if such discrimination or humiliation is not done intentionally by or at the direction of:

- (a) the **Named Insured**; or
- (b) any **executive officer**, director, stockholder, partner, member or manager (if the **Named Insured** is a limited liability company) of the **Named Insured**.

2. add the following exclusions:

**Contractors' General Liability Extension Endorsement**

This insurance does not apply to:

Employment Related Discrimination

Discrimination or humiliation directly or indirectly related to the employment, prospective employment, past employment or termination of employment of any person by any **Insured**.

Premises Related Discrimination

discrimination or humiliation arising out of the sale, rental, lease or sub-lease or prospective sale, rental, lease or sub-lease of any room, dwelling or premises by or at the direction of any **Insured**.

Notwithstanding the above, there is no coverage for fines or penalties levied or imposed by a governmental entity because of discrimination.

The coverage provided by this **PERSONAL AND ADVERTISING INJURY -DISCRIMINATION OR HUMILIATION** Provision does not apply to any person or organization whose status as an **Insured** derives solely from

Provision 1. **ADDITIONAL INSURED** of this endorsement; or

attachment of an additional insured endorsement to this **Coverage Part**.

This **PERSONAL AND ADVERTISING INJURY -DISCRIMINATION OR HUMILIATION** Provision does not apply to any person or organization who otherwise qualifies as an additional insured on this **Coverage Part**.

21. PERSONAL AND ADVERTISING INJURY - CONTRACTUAL LIABILITY

A. Under **COVERAGES, Coverage B -Personal and Advertising Injury Liability**, the paragraph entitled **Exclusions** is amended to delete the exclusion entitled **Contractual Liability**.

B. Solely for the purpose of the coverage provided by this **PERSONAL AND ADVERTISING INJURY - CONTRACTUAL LIABILITY** provision, the following changes are made to the section entitled **SUPPLEMENTARY PAYMENTS - COVERAGES A AND B**:

1. Paragraph 2.d. is replaced by the following:

d. The allegations in the **suit** and the information the Insurer knows about the offense alleged in such **suit** are such that no conflict appears to exist between the interests of the **Insured** and the interests of the indemnitee;

2. The first unnumbered paragraph beneath Paragraph 2.f.(2)(b) is deleted and replaced by the following:

So long as the above conditions are met, attorneys fees incurred by the Insurer in the defense of that indemnitee, necessary litigation expenses incurred by the Insurer, and necessary litigation expenses incurred by the indemnitee at the Insurer's request will be paid as **defense costs**. Such payments will not be deemed to be **damages for personal and advertising injury** and will not reduce the limits of insurance.

C. This **PERSONAL AND ADVERTISING INJURY - CONTRACTUAL LIABILITY** Provision does not apply if **Coverage B -Personal and Advertising Injury Liability** is excluded by another endorsement attached to this **Coverage Part**.

This **PERSONAL AND ADVERTISING INJURY - CONTRACTUAL LIABILITY** Provision does not apply to any person or organization who otherwise qualifies as an additional insured on this **Coverage Part**.

22. PROPERTY DAMAGE - ELEVATORS

A. Under **COVERAGES, Coverage A - Bodily Injury and Property Damage Liability**, the paragraph entitled **Exclusions** is amended such that the **Damage to Your Product** Exclusion and subparagraphs (3), (4) and (6) of the **Damage to Property** Exclusion do not apply to **property damage** that results from the use of elevators.





CNA PARAMOUNT

Contractors' General Liability Extension Endorsement

- B. Solely for the purpose of the coverage provided by this **PROPERTY DAMAGE – ELEVATORS** Provision, the **Other Insurance** conditions is amended to add the following paragraph:

This insurance is excess over any of the other insurance, whether primary, excess, contingent or on any other basis that is Property insurance covering property of others damaged from the use of elevators.

23. SUPPLEMENTARY PAYMENTS

The section entitled **SUPPLEMENTARY PAYMENTS – COVERAGES A AND B** is amended as follows:

- A. Paragraph 1.b. is amended to delete the \$250 limit shown for the cost of bail bonds and replace it with a \$5,000. limit; and
- B. Paragraph 1.d. is amended to delete the limit of \$250 shown for daily loss of earnings and replace it with a \$1,000. limit.

24. UNINTENTIONAL FAILURE TO DISCLOSE HAZARDS

If the **Named Insured** unintentionally fails to disclose all existing hazards at the inception date of the **Named Insured's Coverage Part**, the Insurer will not deny coverage under this **Coverage Part** because of such failure.

25. WAIVER OF SUBROGATION - BLANKET

Under **CONDITIONS**, the condition entitled **Transfer Of Rights Of Recovery Against Others To Us** is amended to add the following:

The Insurer waives any right of recovery the Insurer may have against any person or organization because of payments the Insurer makes for injury or damage arising out of:

1. the **Named Insured's** ongoing operations; or
2. **your work** included in the **products-completed operations hazard**.

However, this waiver applies only when the **Named Insured** has agreed in writing to waive such rights of recovery in a written contract or written agreement, and only if such contract or agreement:

1. is in effect or becomes effective during the term of this **Coverage Part**; and
2. was executed prior to the **bodily injury, property damage or personal and advertising injury** giving rise to the claim.

26. WRAP-UP EXTENSION: OCIP, CCIP, OR CONSOLIDATED (WRAP-UP) INSURANCE PROGRAMS

Note: The following provision does not apply to any public construction project in the state of Oklahoma, nor to any construction project in the state of Alaska, that is not permitted to be insured under a **consolidated (wrap-up) insurance program** by applicable state statute or regulation.

If the endorsement **EXCLUSION – CONSTRUCTION WRAP-UP** is attached to this policy, or another exclusionary endorsement pertaining to Owner Controlled Insurance Programs (O.C.I.P.) or Contractor Controlled Insurance Programs (C.C.I.P.) is attached, then the following changes apply:

- A. The following wording is added to the above-referenced endorsement:

With respect to a **consolidated (wrap-up) insurance program** project in which the **Named Insured** is or was involved, this exclusion does not apply to those sums the **Named Insured** become legally obligated to pay as **damages** because of:

1. **Bodily injury, property damage, or personal or advertising injury** that occurs during the **Named Insured's** ongoing operations at the project, or during such operations of anyone acting on the **Named Insured's** behalf; nor

**Contractors' General Liability Extension Endorsement**

2. **Bodily injury** or **property damage** included within the **products-completed operations hazard** that arises out of those portions of the project that are not **residential structures**.
- B. Condition 4. **Other Insurance** is amended to add the following subparagraph 4.b.(1)(c):
- This insurance is excess over:
- (c) Any of the other insurance whether primary, excess, contingent or any other basis that is insurance available to the **Named Insured** as a result of the **Named Insured** being a participant in a **consolidated (wrap-up) insurance program**, but only as respects the **Named Insured's** involvement in that **consolidated (wrap-up) insurance program**.
- C. **DEFINITIONS** is amended to add the following definitions:
- Consolidated (wrap-up) insurance program** means a construction, erection or demolition project for which the prime contractor/project manager or owner of the construction project has secured general liability insurance covering some or all of the contractors or subcontractors involved in the project, such as an Owner Controlled Insurance Program (O.C.I.P.) or Contractor Controlled Insurance Program (C.C.I.P.).
- Residential structure** means any structure where 30% or more of the square foot area is used or is intended to be used for human residency, including but not limited to:
1. single or multifamily housing, apartments, condominiums, townhouses, co-operatives or planned unit developments; and
 2. the common areas and structures appurtenant to the structures in paragraph 1. (including pools, hot tubs, detached garages, guest houses or any similar structures).
- However, when there is no individual ownership of units, **residential structure** does not include military housing, college/university housing or dormitories, long term care facilities, hotels or motels. **Residential structure** also does not include hospitals or prisons.
- This **WRAP-UP EXTENSION: OCIP, CCIP, OR CONSOLIDATED (WRAP-UP) INSURANCE PROGRAMS** Provision does not apply to any person or organization who otherwise qualifies as an additional insured on this **Coverage Part**.

All other terms and conditions of the Policy remain unchanged.

This endorsement, which forms a part of and is for attachment to the Policy issued by the designated Insurers, takes effect on the effective date of said Policy at the hour stated in said Policy, unless another effective date is shown below, and expires concurrently with said Policy.

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**MECHANICAL &
ENERGY SERVICES** Heating, Air Conditioning, Piping, Sheetmetal, & Energy Services.

Bid Number – AN -2022-23#2

Description – Past projects and project contacts

Project location - 11 School Rd , Andover CT 06232

By – USA Mechanical & Engery Services
15-D International Drive
East Granby ,CT 06026

Date - 6/8/23

B'Nai Tikvoh-Sholom Rooftop Replacement (

Barry Goldberg

B'Nai Tikvoh Sholom
Treasurer

(860) 930-5472 Mobile
barrygoldberg@msn.com

180 Still Road
Bloomfield, CT 06002

Banner Industries (see attached Proposal)

Rob Mazeika

Indus Realty Trust
Construction Manager
(860) 286-7660 Work
(860) 286-1316 Primary
(860) 866-7263 Mobile
rmazeika@indusrt.com
204 West Newberry Road
Bloomfield, CT 06002

Data Mail Server Room Upgrades

Larry Redshaw

Data-Mail, Inc
Facilities Manager

(860) 666-0399 Work
(860) 999-3660 Mobile
larryr@data-mail.com
240 Hartford Avenue
Newington, CT 06111



Heating, Air Conditioning, Piping, Sheetmetal & Energy Services

USA Mechanical & Energy Services, LLC Turnkey Proposal

Turnkey Proposal For:

Data-Mail, Inc.
Attn: Larry Redshaw
240 Hartford Avenue
Newington, CT 06111

Site Address:

240 Hartford Avenue
Newington, CT 06111

USA Mechanical & Energy Services Representative:

David Ford
President
15-D International Drive
East Granby, CT 06026
E-mail: dford@usamech.com
Cell: (860) 999-4622

Proposal Date:

December 20, 2021

USA Mechanical & Energy Services, LLC will perform the following HVAC quoted scope on the described equipment located at:

Data-Mail, Inc., 240 Hartford Avenue, Newington CT

Scope of Services:

Ductless Mini-Split System for air-conditioning

- Furnish and install ductless mini-split system with (Qty 5) 3-Ton condensing units and (Qty 10) indoor evaporator units baseline efficiency systems including all necessary refrigeration piping, low voltage wiring, rigging, labor and materials
 - For redundancy purpose, this approach provides a 2:1 ratio of indoor to outdoor units
 - Wall mounted indoor units
 - **No humidity control, ac only**
 - Wall mounted Wi-Fi control thermostats
 - R-410a environmentally friendly refrigerant
 - Snow stands
 - Wind baffles, low ambient control down to 0 deg. F.
 - Wall mount or ceiling recessed
 - Condensate piping drain with built-in micro pumps & condensate alarm switches
 - Insulation
 - Lift rental
- Not Included: structural analysis, stamped engineered drawings, disconnects, structural modifications, power wiring, roof work, removal and/or replacement of ceiling tiles by others

Total Proposal Pricing - \$80,620.00 including sales tax

- **Equipment/Materials Price.....\$54,600.00** (Please note that after January 1st, 2022, equipment price will increase by \$2,243.00)
- **Labor.....\$16,620.00**
- **Subcontractors/Lift Rental.....\$4,900.00**
- **Permit Fees.....\$2,500.00**
- **Contingency.....\$2,000.00**

The lead time for the equipment is estimated at 6 weeks plus transit. Please consider that this is an estimate only.

There is a Cool Choice Rebate of \$3,000 for the selection of this equipment.

General Clarifications

- Work to be performed during normal business hours
- Rigging performed during Saturday
- All associated engineering and permit filing fees are included
- Existing equipment to remain

Exclusions

- Containment and server room equipment protection
- Disconnect / reconnect fire sprinkler heads, smoke detectors, lights
- High voltage electrical wiring
- Roofing, roof work, weatherproofing
- Structural support, structural steel
- Drop ceiling removal / reinstallation
- Engineered heat loads / stamped mechanical plans
- Fire protection
- BMS integration
- Insulation of existing piping
- Ceiling tiles
- Repair or replacement of existing equipment that may malfunction

Respectfully submitted,
David Ford
President
USA Mechanical & Energy Services, LLC
(860) 999-4622

ACCEPTANCE

We value the confidence you have placed in USA Mechanical & Energy Services, LLC and look forward to working with you. Due to high volatility in material costs, all material pricing is subject to change and not guaranteed until acceptance and release of order. Material pricing will be reviewed upon acceptance of the order. This proposal is valid for 10 days. Payment terms net 30 days.

Thank you for thinking of USA Mechanical & Energy Services, LLC



Heating, Air Conditioning, Piping, Sheetmetal & Energy Services

April 15, 2022

Mr. Barry Goldberg
B'Nai Tikvoh-Sholom
180 Still Road
Bloomfield, CT 06002

Subject: Rooftop HVAC Unit Replacement Project

Dear Barry,

We are pleased to submit our Proposal for HVAC upgrades at the above subject project. This proposal is based on the site walk-through with Barry Goldberg. Included in this proposal is the following scope of work.

Scope of Work

Roof Top Unit Replacement:

- Disconnect existing RTUs (qty. 3) and make ready for removal by our rigger
- Disconnect & remove existing abandoned condensing unit (qty.1) located on roof
- Evacuate and dispose of refrigerant from RTUs & condensing unit and make ready for the rigger to dispose
- Furnish & Install (3) new High Efficiency RTUs on existing steel support dunnage
- New RTU's are larger in size than existing RTU's. USA Mechanical to install steel beams for additional support of new RTU's base
- Fabricate & install necessary ductwork transitions
- Insulate exterior duct work transitions with 2" polyiso (rigid, closed cell, continuous foam board insulation) and VentureClad jacketing to insure a waterproof seal
- Provide and install PVC condensate trap and drain per manufacturer's recommendations. Drain condensate to roof.
- Connect new RTUs to existing natural gas piping.
- Paint all new gas lines that are "exposed to the elements".
- USA to provide field installation of any RTU accessories shipped loose.
- Replace disconnects with new fused disconnects
- Replace damaged seal tight conduits feeding new RTU's
- Furnish & install new 120-volt convenience outlets
- USA to have a Structural Engineer review existing weights compared to new weights of RTU's and determine existing structure and roof is sufficient (please note: additional roof structural steel support & modifications, if required by a Structural Engineer are not included)
- USA to provide pre- and post-construction SA airflow readings. USA to balance, as necessary.
- USA to provide unit start-up
- One-year materials & labor warranty is included
- All necessary permit fees are included.

PRICE

Total Price (excluding all application CT State Sales Tax).....\$139,875.00

The CT Cool Choice Rebate program by EnergizeCT will offer a \$9,000.00 rebate for this project if you decide to proceed.

General Clarifications:

- **Not Included:** Fire protection, roof work, hazardous materials, bonds. Any work related to fire alarm system; smoke detectors is by others. Engineered MEP or structural drawings not included. Structural analysis by a structural Engineer is included but structural roof modifications, if determined to be necessary by the structural engineer is not included.

The current lead-time for the new RTU HVAC units is 16 weeks for the 10-ton unit and 21 weeks for the 15-ton & 20-ton plus transit

Payment terms are as follows: 1/3 down payment, 1/3 upon receipt of HVAC units, 1/3 upon completion of the project

Respectfully submitted,

David Ford
President
USA Mechanical & Energy Services, LLC
(860) 653-3536

ACCEPTANCE

| | |
|---|---|
| Submitted By: David Ford | Cell: 860-999-4622 Office: (860) 653-3536 Proposal Date: April 15, 2022 |
| CUSTOMER ACCEPTANCE B'Nai Tikvoh-Sholom | USA Mechanical & Energy Services, LLC |
| Authorized Representative | Authorized Representative |
| Printed Name | Printed Name: David Ford |
| Title | Title: President |
| Purchase Order | Signature Date |
| Acceptance Date: | License Number: 0395701-S1 |

We value the confidence you have placed in USA Mechanical & Energy Services, LLC and look forward to working with you.

All quotes are valid for a period of ten (10) days from the date of proposal, time being of the essence. After such ten (10) day period, the pricing provided for herein shall be subject to increase. In the event that the customer desires to accept this proposal after ten (10) days from the date of proposal, it shall be the customer's obligation to re-affirm the quote with USA Mechanical & Energy Services, LLC ("USA"). In the event of a significant delay in performance due to inability to obtain equipment, or price increase for materials, occurring at any time after customer accepts USA's proposal, the materials pricing, length of time for performance, and proposal requirements shall be equitably adjusted. A change in price of an item of material shall be deemed significant when the price of the item increases three (3%) percent between the date of the proposal and the date of USA's procurement of such item. A delay in performance shall be deemed significant in the event that circumstances necessitate that the work to be performed by USA be delayed by more than fifteen (15) days. Under no circumstances shall USA be responsible for delays in shipments and/or deliveries.

The foregoing terms shall be deemed an integral component of any contract entered into between the customer and USA, notwithstanding anything in such contract to the contrary, and shall supersede any terms in said contract to the contrary.

Payment terms net 30 days. Thank you for thinking of USA Mechanical & Energy Services, LLC



Heating, Air Conditioning, Piping, Sheetmetal & Energy Services

USA Mechanical & Energy Services, LLC Quoted Service

Quoted Project Proposal For:

Prescott Construction
Attn: Kevin Lazich
6 Wilcox Street
Simsbury, CT 06070

Site Address:

Banner Industries
20 International Drive
Windsor, CT 06095

Date:

May 10, 2022

USA Mechanical & Energy Services

Representative:

Devan Ford
Project Engineer
15-D International Drive
East Granby, CT 06026
E-mail: dcford@usamech.com
Cell: (254) 716-6994

Banner Industries Fitout – Tenant Scope of Work Only

USA Mechanical & Energy Services, LLC will perform the following proposed HVAC & Plumbing services at Banner Industries located at 20 International Dr, Windsor, CT:

HVAC Scope:

- Furnish and install new supply & return ductwork and RGD's as required for Open Office 111 and Break Room 124. Tie into existing trunks
- Provide insulation for new supply and return ductwork
- Open Office 111 and Break Room 124 each to have individual zone damper and thermostat
- Lift rental is included
- Permit fees are included
- HVAC design & drawings are included
- Provide certified balancing report

Plumbing Scope:

- Temporarily remove existing toilets, urinals, and lavatories for new flooring in Men's 108 & 117 and Women's 109 & 118. Store fixtures on site and reinstall when new flooring completed
- Furnish and install new hand washing sink as indicated on drawing
- Furnish and install new domestic hot & cold water piping, waste & vent piping for new hand washing sink
- Permit fees are included
- Plumbing design & drawings are included

Compressed Air Scope:

- Furnish and install new compressed air loop piping per sketch provided
- Lift rental is included
- Permit fees are included

Exclusions:

- HV electrical power wiring
- Disconnect/reconnect switches
- Roofwork
- Asbestos abatement
- Fire alarm / sprinkler / fire system tie-in
- Installation, repair, and/or diagnosis of existing equipment and work beyond quoted scope
- Seismic / structural support
- Insulation of existing duct/piping
- Water balancing
- Saw cutting of concrete
- Millwork
- Bonds

Pricing and Acceptance

Prescott Construction
Attn: Kevin Lazich
6 Wilcox Street
Simsbury, CT 06070

Site: Banner Industries
20 International Drive
Windsor, CT 06095

Price

- **Proposed HVAC Scope**
Total Net Pricing (Including Sales & Use Tax)..... **\$28,530.00**
- **Proposed Plumbing Scope**
Total Net Pricing (Including Sales & Use Tax)..... **\$13,665.00**
- **Proposed Compressed Air Scope**
Total Net Pricing (Including Sales & Use Tax)..... **\$24,550.00**

Respectfully submitted,
Devan Ford
Project Engineer
USA Mechanical & Energy Services, LLC
(254) 716-6994

Acceptance

We value the confidence you have placed in USA Mechanical & Energy Services, LLC and look forward to working with you. All quotes are valid for a period of ten (10) days from the date of proposal, time being of the essence. After such ten (10) day period, the pricing provided for herein shall be subject to increase. In the event that the customer desires to accept this proposal after ten (10) days from the date of proposal, it shall be the customer's obligation to re-affirm the quote with USA Mechanical & Energy Services, LLC ("USA").

In the event of a significant delay in performance due to inability to obtain equipment, or price increase for materials, occurring at any time after customer accepts USA's proposal, the materials pricing, length of time for performance, and proposal requirements shall be equitably adjusted. A change in price of an item of material shall be deemed significant when the price of the item increases three (3%) percent between the date of the proposal and the date of USA's procurement of such item. A delay in performance shall be deemed significant in the event that circumstances necessitate that the work to be performed by USA be delayed by more than fifteen (15) days. Under no circumstances shall USA be responsible for delays in shipments and/or deliveries.

The foregoing terms shall be deemed an integral component of any contract entered into between the customer and USA, notwithstanding anything in such contract to the contrary, and shall supersede any terms in said contract to the contrary. Thank you for thinking of USA Mechanical & Energy Services, LLC.

| | |
|---|--|
| Submitted By: Devan Ford | Cell: (254) 716-6994 Office: (860) 653-3536 Proposal Date: May 10, 2022 USA Mechanical & Energy Services, LLC |
| CUSTOMER ACCEPTANCE Prescott Construction | |
| Authorized Representative | Authorized Representative |
| Printed Name | Printed Name |
| Title | Title |
| Purchase Order | Signature Date |
| Acceptance Date: | License Number: 0395701-S1 |



**MECHANICAL &
ENERGY SERVICES**

Heating, Air Conditioning, Piping, Sheetmetal, & Energy Services.

Bid Number – AN -2022-23#2

Description – Non – discrimination letter

Project location - 11 School Rd , Andover CT 06232

By – USA Mechanical & Engery Services
15-D International Drive
East Granby ,CT 06026

Date - 6/8/23



Heating, Air Conditioning, Piping, Sheetmetal & Energy Services

Town of Andover
17 School Road
Andover CT 06232

June 1st, 2023

To whom it may concern:

This letter is to acknowledge that USA Mechanical & Energy Services LLC does not and shall not discriminate on the bases of race, color, religion, age, sex, material status, national origin, ancestry, physical or mental disability, sexual orientation, genetic information, or any other legally protected class in accordance with applicable laws.

This commitment extends to all employment decisions, including but not limited to;

Recruiting, hiring, promotion, training, compensation, discipline, and discharge, and to all terms, benefits, privileges, and conditions of employment.

Discrimination in violation of our policy is prohibited and will not be tolerated.

Best Regards

A handwritten signature in black ink, appearing to read "Steve Dion". The signature is stylized with a large, sweeping "S" and a long, horizontal stroke at the end.

Steve Dion
President



**MECHANICAL &
ENERGY SERVICES** Heating, Air Conditioning, Piping, Sheetmetal, & Energy Services.

Bid Number – AN -2022-23#2

Description -Invitation to Bid -HVAC Replacement at Andover Fire Department

Project location - 11 School Rd , Andover CT 06232

By – USA Mechanical & Engery Services
15-D International Drive
East Granby ,CT 06026

Submitted By – Kevin Lanagan

Signature -

Date - 6/8/23

Town of Andover

Proposal Summary

Lump Sum Price Bidder will complete the Project titled **2023 HVAC Replacement at Andover Fire Department in Andover, CT** work in accordance with the Contract Documents as described:

Summary Description

prevailing Rate applied
See attached

Lump Sum Cost Inclusive of Labor and Materials _\$ *128,100.00*
PRICE

*** All associated work to complete the work as requested by the Town shall be included. there shall be no additional costs except As noted below*

Option 1 Description

See attached Bid sheet description

Lump Sum Cost Inclusive of Labor and Materials _\$
PRICE

Option 2 Description

Lump Sum Cost Inclusive of Labor and Materials _\$
PRICE



Heating, Air Conditioning, Piping, Sheetmetal & Energy Services

Andover Fire department
11 School Rd
Andover CT 06232

Subject: Bid # AN-2022-23#2

We are pleased to submit our Proposal for HVAC services at the above subject project.

Scope of Work

- Provide and install one 10 ton indoor dual 5-ton circuit Trane air handler with secondary drain pan and outdoor five-ton condensing units (2) with programable thermostat complete.
- Installation will include the following.
Installation includes the following.
- Isolate power and control to one existing 10-ton dual circuit Trane air conditioning system.
- Recover refrigerant from system and dispose of.
- Remove required drop ceiling, grid and lighting in ready room ..
- Cut back required ductwork for removal and installation of replacement carrier ahu.
- Remove and dispose of existing ac piping, condensate piping and required wiring complete.
- Crane off and dispose of existing roof located Trane condensing units.
- Patch required roofing.
- Provide and install one Trane 10-ton air handler complete with required, indirectly piped secondary drain pan, refrigerant piping, condensate piping, power and control wiring complete.
- Provide and install two outdoor 5-ton Trane condensing units complete on 12" tall stands.
- Provide and install required disconnects, power wiring, low voltage wiring with line hide cover complete.
- Remove and dispose of existing thermostat.
- Provide and install one programable stat complete with required wiring.
- Pressure test, evacuate and charge system.
- Run and test.
- Re-install drop ceiling completely.

Continue on next page.

- Provide and install one outdoor Mitsubishi unit on wall mount stand complete.
- Provide and install one ceiling recessed cassette in Chief office, watch office, conference room, and hall-way complete with wired stat complete.
- Provide and install required refrigeration piping, condensate piping, and communication wiring from indoor units to newly installed outdoor unit.
- Pressure test refrigerant piping
- Provide and install line-hide cover on all exposed piping outside complete.
- Provide and install required electrical, disconnect and whip to outdoor unit complete.
- Run and test newly installed.
- Review operations with facilities.

General Clarifications:

- All work to be performed during weekday hours of 6:30 -3:30
- Any existing furniture / etc. below where units to be installed to be moved by others prior to proposed .
- Compromised and missing ceiling tiles / grid to be provided by owners /town
- Equipment – 10-12 weeks out from order currently
- Install to be completed 4 weeks after agreed install date .

Respectfully submitted,
Kevin Lanagan
Service Accounts Manager/Business Developer
USA Mechanical & Energy Services, LLC
(860) 653-3536



**MECHANICAL &
ENERGY SERVICES**

Heating, Air Conditioning, Piping, Sheetmetal, & Energy Services.

Bid Number – AN -2022-23#2

Description - Heat Loss for required areas

Project location - 11 School Rd , Andover CT 06232

By – USA Mechanical & Engery Services
15-D International Drive
East Granby ,CT 06026

Date - 6/8/23

Report Prepared By:

USA Mechanical & Energy Services LLC

For:

Andover Fire- Training room , Bunk Room , Ready Room and Kitchen
11 School Rd
Andover, CT 06232

Design Conditions: Norwich: Latitude: 41; Time 1:00 PM

| Indoor: | | Outdoor: | |
|---------------------|----|----------------------------|-----|
| Summer temperature: | 75 | Summer temperature: | 86 |
| Winter temperature: | 72 | Winter temperature: | 7 |
| Relative humidity: | 50 | Summer grains of moisture: | 102 |
| | | Daily temperature range: | 18 |

Total Cooling Load: 105,906 BTUH (9 tons)

Sensible: 55,617

Latent: 50,289

Total Heating Load: 133,499 BTUH

Report Prepared By:

USA Mechanical & Energy Services LLC

For:

Andover Fire - Chef Office
11 School Rd
Andover, CT 06232

Design Conditions: Norwich; Latitude: 41; Time 1:00 PM

Indoor:

Summer temperature: 72
Winter temperature: 72
Relative humidity: 50

Outdoor:

Summer temperature: 86
Winter temperature: 7
Summer grains of moisture: 102
Daily temperature range: 18

Total Cooling Load: 4,362 BTUH (0.5 tons)

Sensible: 2,965

Latent: 1,397

Total Heating Load: 5,488 BTUH

Report Prepared By:

USA Mechanical & Energy Services LLC

For:

Andover Fire - Common Hall
11 School Rd
Andover, CT 06232

Design Conditions:

Norwich; Latitude: 41; Time 1:00 PM

Indoor:

Summer temperature: 72
Winter temperature: 72
Relative humidity: 50

Outdoor:

Summer temperature: 90
Winter temperature: 7
Summer grains of moisture: 102
Daily temperature range: 18

Total Cooling Load: 10,951 BTUH (1 tons)

Sensible: 8,154

Latent: 2,797

Total Heating Load: 6,942 BTUH

Report Prepared By:

USA Mechanical & Energy Services LLC

For:

Andover Fire - Conference room
11 School Rd
Andover, CT 06232

Design Conditions: Norwich; Latitude: 41; Time 1:00 PM

Indoor:Summer temperature: 72
Winter temperature: 72
Relative humidity: 50**Outdoor:**Summer temperature: 90
Winter temperature: 7
Summer grains of moisture: 102
Daily temperature range: 18**Total Cooling Load: 10,232 BTUH (1 tons)**

Sensible: 7,435

Latent: 2,797

Total Heating Load: 6,649 BTUH

Report Prepared By:

USA Mechanical & Energy Services LLC

For:

Andover Fire - Watch
11 School Rd
Andover, CT 06232

Design Conditions:

Norwich;

Latitude: 41;

Time 1:00 PM

Indoor:

Summer temperature:

72

Winter temperature:

72

Relative humidity:

50

Outdoor:

Summer temperature:

86

Winter temperature:

7

Summer grains of moisture:

102

Daily temperature range:

18

Total Cooling Load:

5,780 BTUH (0.5 tons)

Sensible:

4,183

Latent:

1,597

Total Heating Load:

4,699 BTUH



**MECHANICAL &
ENERGY SERVICES** Heating, Air Conditioning, Piping, Sheetmetal, & Energy Services.

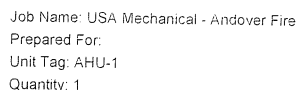
Bid Number – AN -2022-23#2

Description - Equipment submittals

Project location - 11 School Rd , Andover CT 06232

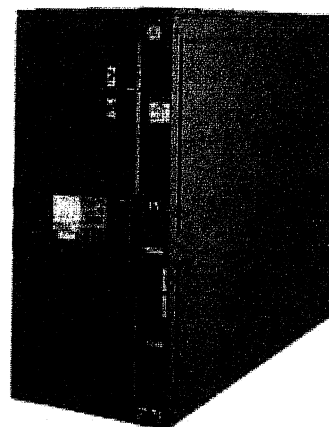
By – USA Mechanical & Engery Services
15-D International Drive
East Granby ,CT 06026

Date - 6/8/23



Unit Overview

| | |
|----------------------------------|--|
| Model | TWE12041BAA**B10000000000000 000000000000 |
| Unit Tonnage | 10 Tons |
| Max A.H. Operating weight | 442.0 lb |
| Min A.H. Operating weight | 406.0 lb |
| Unit Voltage | 208-230/60/1 |
| Field Applied Voltage | 0 |
| Refrigeration Circuit | Dual Circuit |
| Controls | Constant Volume - Symbio |



Fan Information

| | |
|---------------------------------|---------------------------|
| Airflow | 4000 cfm |
| External Static Pressure | 1.000 in H ₂ O |
| Supply fan motor RPM | 975 rpm |
| Supply fan motor BHP | 2.24 bhp |

| | |
|---------------------|---------|
| Cooling EDB | 80.00 F |
| Cooling EWB | 67.00 F |
| Ambient Temperature | 95.00 F |

| Heat Pump Information | | Electric Heat Information | |
|---------------------------|--------|---------------------------|--------|
| Winter EDB | 8.00 F | Heating EDB | 8.00 F |
| Winter Outdoor Ambient DB | 8.00 F | | |

| | | | |
|--------------------------|--------------|-----------------------------------|---------|
| External Static Pressure | 1.000 in H2O | MCA - A.H. for 230V w/elect. heat | 13.00 A |
| MCA - A.H. | 13.00 A | | |
| MOP - A.H. | 20.00 A | | |
| Supply Fan Motor FLA | 10.50 A | | |

| | |
|----------------------|---------|
| Evaporator Motor FLA | 10.50 A |
|----------------------|---------|



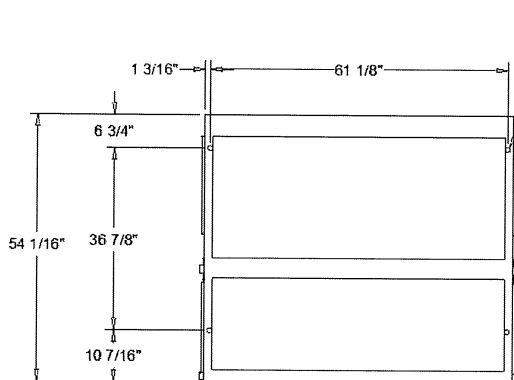
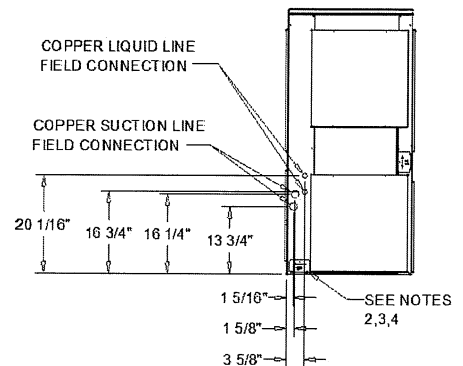
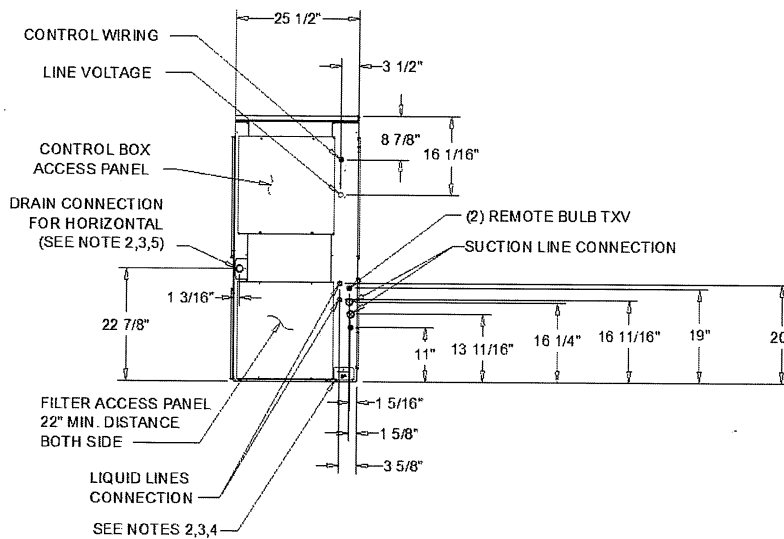
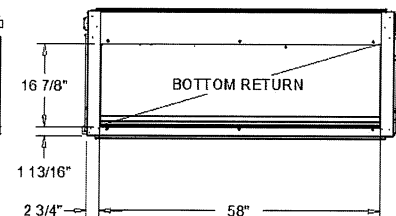
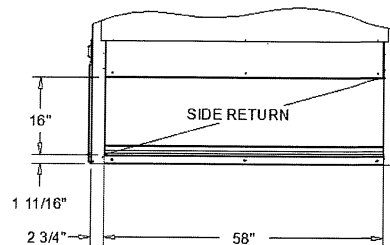
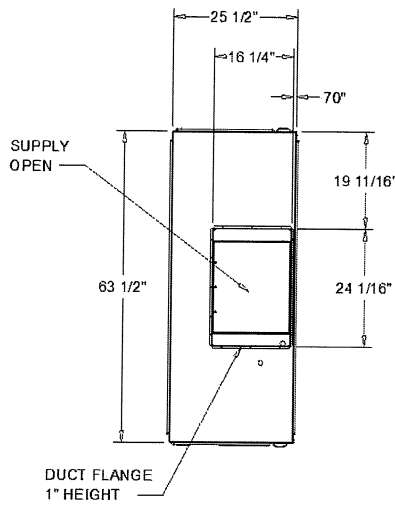
Job Name: USA Mechanical - Andover Fire
 Prepared For:
 Unit Tag: AHU-1
 Quantity: 1

NOTES:

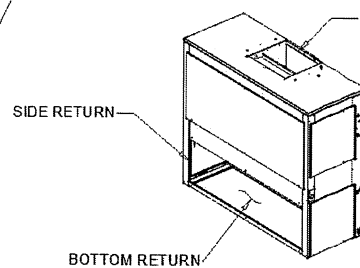
- 1 PANEL DEPTH 1/2" (TYP ALL PANELS).
2. REMOVABLE DRAIN PAN AND ATTACHED DRAIN CONNECTION MAY BE INSTALLED ON END OF UNIT IN EITHER THE VERTICAL OR HORIZONTAL CONFIGURATION, PLASTIC DRAIN PAN ACCESS PLATE ON THE END OF UNIT OPPOSITE DRAIN CONNECTION MUST BE REMOVED TO SLIDE DRAIN PAN OUT OF UNIT FOR CLEANING. ACCESS PLATE MUST BE RE-INSTALLED AFTER SLIDING DRAIN PAN BACK INTO UNIT.
3. IF PERIODIC DRAIN PAN CLEANING IS REQUIRED, ALLOW ROOM FOR PARTIAL REMOVAL OF DRAIN PAN CONNECTION AT END OF UNIT.
4. 1" FEMALE SCHED. 40 PVC PIPE DRAIN CONNECTION VERTICAL CONFIGURATION.
5. 1" FEMALE SCHED. 40 PVC PIPE DRAIN CONNECTION HORIZONTAL CONFIGURATION.

REFRIGERANT

1. SUCTION CONNECTION (1 1/8" OD) AND LIQUID CONNECTION (1/2" OD)

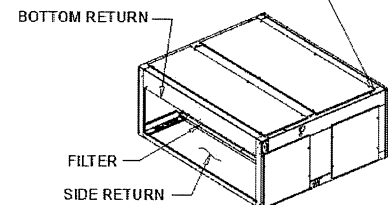


(4) - HOLE FOR HORIZONTAL SUSPENSION



SUPPLY VERTICAL -
 RETURN HORIZONTAL /
 RETURN VERTICAL

(4) KNOCKOUT FOR HORIZONTAL SUSPENSION



SUPPLY HORIZONTAL -
 RETURN VERTICAL /
 RETURN HORIZONTAL

10 TON AIR HANDLER (DUAL CIRCUIT)

DIMENSIONAL DRAWING



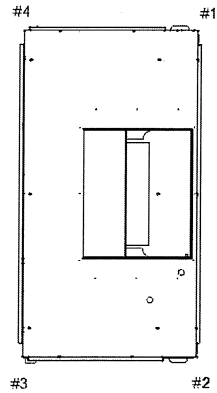
TRANE

Job Name: USA Mechanical - Andover Fire

Prepared For:

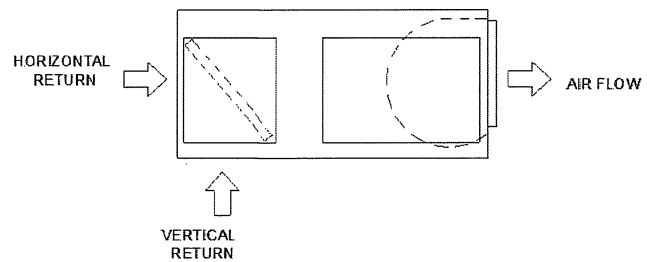
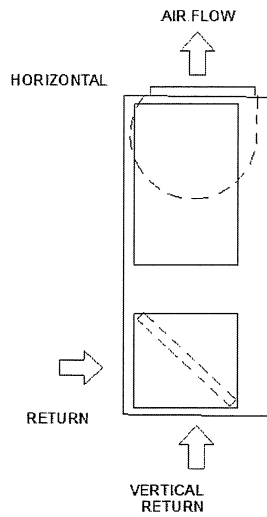
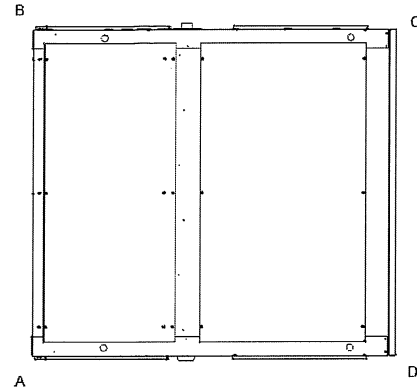
Unit Tag: AHU-1

Quantity: 1



WEIGHTS AND CORNER WEIGHTS

| | |
|------------|----------|
| Shipping: | 441.0 lb |
| Net | 393.0 lb |
| VERTICAL | |
| Corner 1: | 77.0 lb |
| Corner 2: | 121.0 lb |
| Corner 3: | 110.0 lb |
| Corner 4: | 85.0 lb |
| HORIZONTAL | |
| Corner A: | 79.0 lb |
| Corner B: | 118.0 lb |
| Corner C: | 77.0 lb |
| Corner D: | 119.0 lb |



WEIGHTS AND LOAD POINT LOCATION FOR CONDENSOR

WEIGHT AND RIGGING



TRANE

Job Name: USA Mechanical - Andover Fire

Prepared For:

Unit Tag: AHU-1

Quantity: 1

General - (TWE)

- Completely factory assembled
- Convertible for horizontal or vertical configuration
- Convertible for cooling only or heat pump application
- Convertible for left or right external connections (refrigerant and/or electrical)
- Convertible for front or bottom air return
- Nitrogen holding charge
- Certified to UL 1995 for indoor blower coil units

Casing - (TWE)

- Zinc coated, heavy gauge, galvanized steel
- Weather resistant baked enamel finish
- Access panels with captive screws
- Completely insulated with foil faced, cleanable, fire retardant, permanent, odorless glass fiber material
- Captured or sealed insulation edges
- Electrical connection bushings or plugs
- Refrigerant connection bushings or plugs
- Withstand elevated internal static pressure

Refrigeration System - (TWE)

- Single or dual circuit
- Distributor(s)
- Thermal expansion valves (TXVs)

Evaporator Coil - (TWE)

- 3/8" internally enhanced copper tube mechanically bonded to lanced aluminum plate fins
- Factory pressure and leak tested to 449 psig.
- Draw-through airflow
- Dual circuits are interlaced/intertwined
- Double sloped, removable, cleanable, composite drain pan
- Four drain pan positions

Indoor Fan - (TWE)

- Double inlet, double width, forward curved, centrifugal type fan
- Dual fans on 12.5-25 ton air handlers-Adjustable belt drive
- Permanently lubricated bearings

Indoor Motor - (TWE)

- Adjustable motor sheaves (constant volume units)
- Fixed motor sheaves (SZVAV and 2-Speed VFD)
- Thermal overload protection
- Permanently lubricated bearings
- Meet energy policy of 1992 (EPACT)
- Optional oversized motors for high static applications

Controls - (TWE)

- Completely internally wired
- Colored and keyed connectors, colored wires
- Magnetic indoor fan contactor
- Detachable low voltage connectors
- Single point power entry
- Evaporator defrost control

Constant Volume Airflow - (TWE)

- Factory installed high static motor available

Filters - (TWE)

- 2 inch, MERV 13 high efficiency filters



TRANE

Job Name: USA Mechanical - Andover Fire

Prepared For:

Unit Tag: AHU-1

Quantity: 1

Electric Heaters - (TWE)

- Heavy duty nickel chromium elements
- Agency approved
- Installs directly on fan discharge
- One or two stage control (dependent upon capacity)
- Single point power entry
- Terminal strip connections

230V Heaters

- Internally delta connected
- Automatic reset of high limit controls through pilot duty with secondary backup fuse links

Condenser and Air Handler Pairings

Table 3. Model number descriptions

| |
|---|
| TWE Air Handler with Symbio |
| Digit 15 — Controls 1 = Constant Volume C = 2 Stage Airflow (Electromechanical Condenser Only) D = 2 Stage Airflow/Single Zone VAV (Symbio Condenser Only) |
| TWE Air Handler (pre-Symbio) |
| Digit 15 — Controls 0 = Constant Volume A = 2 Stage Airflow (Electromechanical Condenser Only) B = Single Zone VAV (ReliaTel Condenser Only) |

Table 4. Condenser and air handler pairing instructions (See document SS-SVN016A-EN)

| Condenser (model # digit) | Air Handler | | Instructions |
|---|----------------|---------------------------------------|---|
| | Type | Supply Fan Type (model # digit) | |
| Odyssey Electromechani- cal (Digit 15 = E) | Odyssey Symbio | Constant Volume (Digit 15 = 1) | Pairing F, D or G require wire harness kit WIR010190 (required) and WIR010185 (optional) to connect Air Handler Relay Board to VFD. |
| | | 2-Speed Airflow (Digit 15 = C) | |
| | | Single Zone VAV (Digit 15 = D) | |
| Odyssey ReliaTel (Digit 15 = R) | Odyssey Symbio | Constant Volume (Digit 15 = 1) | Pairing F, D or G require wire harness kit WIR010190 (required) and WIR010185 (optional) to connect Air Handler Relay Board to VFD. |
| | | 2-Speed Airflow (Digit 15 = C) | |
| | | Single Zone VAV (Digit 15 = D) | |

Condenser and Air Handler Pairings

Table 4. Condenser and air handler pairing instructions (continued) (See document SS-SVN016A-EN)

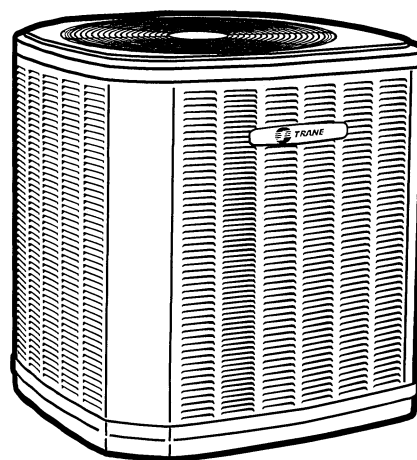
| Condenser (model # digit) | Air Handler | | Instructions |
|---|---------------------------|--|---|
| | Type | Supply Fan Type (model # digit) | |
| Odyssey Symbio (Digit 15 = S) | Odyssey Symbio | Constant Volume (Digit 15 = 1) | Install a shielded, twisted pair cable if the Air Handler has Electric Heat and/or requires Single Zone VAV operation (Trane IMC communication) |
| | | 2-Speed Airflow (Digit 15 = C) | Pairing G, H, and 2 will not have heat in defrost. Pairing G, H, and 2; electric heat will not operate if zone sensor installed, only with a thermostat Install a shielded, twisted pair cable if the Air Handler has Electric Heat and/or requires Single Zone VAV operation (Trane IMC communication) |
| | | Single Zone VAV (Digit 15 = D) | Install a shielded, twisted pair cable if the Air Handler has Electric Heat and/or requires Single Zone VAV operation (Trane IMC communication) Install a shielded, twisted pair cable for Symbio Condenser control of the Air Handler supply fan VFD (Modbus communication) |
| | Odyssey Electromechanical | Constant Volume (Digit 15 = 0) | Pairing G, H, and 2 will not have heat in defrost. |
| | | 2-Speed Airflow (Digit 15 = A) | Pairing G, H, and 2; electric heat will not operate if zone sensor installed, only with a thermostat. |
| | Odyssey ReliaTel | Variable Speed, Single Zone VAV (Digit 15 = B) | Pairing G, H, and 2 will not have heat in defrost. Pairing G, H, and 2; electric heat will not operate if zone sensor installed, only with a thermostat. Install a shielded, twisted pair cable for Symbio Condenser control of the Air Handler supply fan VFD (Modbus communication) |
| | | | Pairing G, H, and 2; electric heat will not operate if zone sensor installed, only with a thermostat. Pairing F, D or G require wire harness kit WIR010190 (required) and WIR010185 (optional) to connect Air Handler Relay Board to VFD. This pairing requires the replacement of the RTOM module with a Symbio Relay Board (MOD03105) and that the VFD wires 81B, 82B, 93B, 94B and 94D be replaced with wire harness kit WIR010190 (required) and WIR010185 (optional). The Air Handler will operate as a 2-speed fan. |
| | Generic Air Handler | Constant Volume | |
| Two Symbio Condensers (2 condensers to 1 air handler) | Odyssey Electromechanical | | |



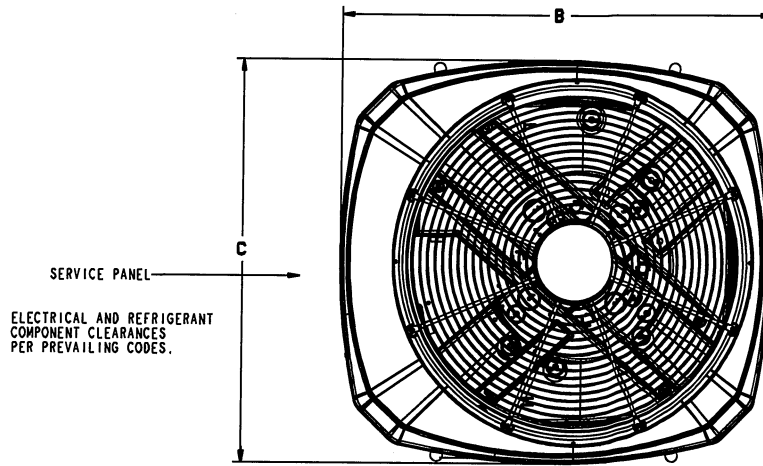
Submittal

Split System Cooling

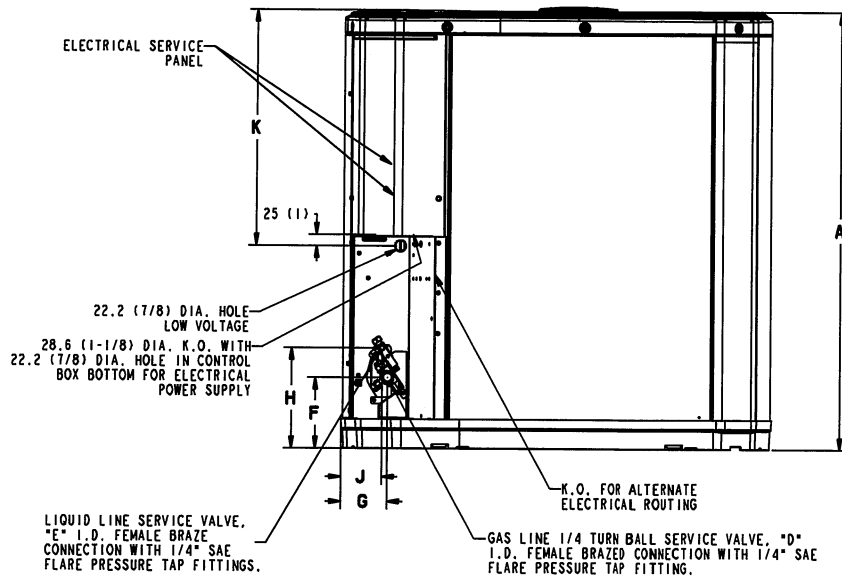
4TTR6060N1000A



Note: "Graphics in this document are for representation only. Actual model may differ in appearance."



TOP DISCHARGE AREA SHOULD BE UNRESTRICTED FOR AT LEAST 1524 (5 FEET) ABOVE UNIT. UNIT SHOULD BE PLACED SO ROOF RUN-OFF WATER DOES NOT POUR DIRECTLY ON UNIT, AND SHOULD BE AT LEAST 305 (12") FROM WALL AND ALL SURROUNDING SHRUBBERY ON TWO SIDES. OTHER TWO SIDES UNRESTRICTED.



| Model | Base | A | B | C | D | E | F | G | H | J | K |
|-----------|------|------------------|-----------------|-----------------|-------|-----|------------|---------------|----------------|---------------|-------------|
| 4TTR6060N | 4 | 1147 (45-1/8) | 946 (37-1/4) | 870 (34-1/4) | 1-1/8 | 3/8 | 152 (6) | 98 (3-7/8) | 219 (8-5/8) | 86 (3-3/8) | 813 (32) |

| Sound Power Level | | | | | | | | | |
|-------------------|--------------------------------------|-----------------------------|--------|--------|--------|---------|---------|---------|---------|
| MODEL | A-Weighted Sound Power Level [dB(A)] | Full Octave Sound Power(dB) | | | | | | | |
| | | 63 Hz* | 125 Hz | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | 8000 Hz |
| 4TTR6060N | 74 | 68 | 70 | 66 | 69 | 66 | 57 | 57 | 53 |

Note: Rated in accordance with AHRI Standard 270-2008 *For Reference Only



Product Specifications

| | |
|--|---------------------|
| OUTDOOR UNIT ^{(a) (b)} | 4TTR6060N1000A |
| POWER CONNS. – V/PH/HZ ^(c) | 208/230/1/60 |
| MIN. BRCH. CIR. AMPACITY | 35 |
| BR. CIR. PROT. RTG. – MAX. (AMPS) | 60 |
| COMPRESSOR | CLIMATUFF® - SCROLL |
| NO. USED – NO. STAGES | 1 – 2 |
| VOLTS/PH/HZ | 208/230/1/60 |
| R.L. AMPS ^(d) – L.R. AMPS | 26.9 – 152.9 |
| FACTORY INSTALLED | |
| START COMPONENTS ^(e) | NO |
| INSULATION/SOUND BLANKET | NO |
| COMPRESSOR HEAT | NO |
| OUTDOOR FAN | PROPELLER |
| DIA. (IN.) – NO. USED | 27.6 – 1 |
| TYPE DRIVE – NO. SPEEDS | DIRECT – 1 |
| CFM @ 0.0 IN. W.G. ^(f) | 4760 |
| NO. MOTORS – HP | 1 – 1/4 |
| MOTOR SPEED R.P.M. | 825 |
| VOLTS/PH/HZ | 208/230/1/60 |
| F.L. AMPS | 1.30 |
| OUTDOOR COIL – TYPE | SPINE FIN™ |
| ROWS – F.P.I. | 1 – 24 |
| FACE AREA (SQ. FT.) | 30.79 |
| TUBE SIZE (IN.) | 3/8 |
| REFRIGERANT | R-410A |
| LBS. – R-410A (O.D. UNIT) ^(g) | 12 LBS., 9 OZ |
| FACTORY SUPPLIED | YES |
| LINE SIZE – IN. O.D. GAS ^(h) | 1-1/8 |
| LINE SIZE – IN. O.D. LIQ. ^(h) | 3/8 |
| CHARGING SPECIFICATIONS | |
| SUBCOOLING | 8°F |
| DIMENSIONS | H X W X D |
| CRATED (IN.) | 51 X 35.1 X 38.7 |
| WEIGHT | |
| SHIPPING (LBS.) | 312 |
| NET (LBS.) | 275 |

^(a) Certified in accordance with the Air-Source Unitary Air-conditioner Equipment certification program, which is based on AHRI standard 210/240. In order to achieve AHRI standard rating, the indoor fan time delay on the comfort control must be enabled.

^(b) Rated in accordance with AHRI standard 270.

^(c) Calculated in accordance with Natl. Elec. Codes. Use only HACR circuit breakers or fuses.

^(d) This value shown for compressor RLA on the unit nameplate and on this specification sheet is used to compute minimum branch circuit ampacity and max. fuse size. The value shown is the branch circuit selection current.

^(e) No means no start components. Yes means quick start kit components. PTC means positive temperature coefficient starter.

^(f) Standard Air – Dry Coil – Outdoor

^(g) This value approximate. For more precise value see unit nameplate.
^(h) Max. linear length 60 ft.; Max. lift - Suction 25 ft.; Max lift - Liquid 25 ft. For greater length consult refrigerant piping software Pub. No. 32-3312-0* (* denotes latest revision).



Mechanical Specification Options

General

The outdoor condensing units are factory charged with the system charge required for the outdoor condensing unit, ten (10) feet of tested connecting line, and the smallest rated indoor evaporative coil match. This unit is designed to operate at outdoor ambient temperatures as high as 115°F. Cooling capacities are matched with a wide selection of air handlers and furnace coils that are AHRI certified. The unit is certified to UL 1995. Exterior is designed for outdoor application.

Casing

Unit casing is constructed of heavy gauge, galvanized steel and painted with a weather-resistant powder paint finish. The corner panels are prepainted. All panels are subjected to our 1,000 hour salt spray test.

Refrigerant Controls

Refrigeration system controls include condenser fan, compressor contactor and low and high pressure switches. A factory supplied, field installed liquid line drier is standard.

Compressor

The compressor features internal over temperature and pressure protection. Other features include: Centrifugal oil pump and low vibration and noise.

Condenser Coil

The outdoor coil provides low airflow resistance and efficient heat transfer. The coil is protected on all four sides by louvered panels.

Low Ambient Cooling

As manufactured, this system has a cooling capacity to 55°F. The addition of an evaporator defrost control permits operation to 40°F. The addition of an evaporator defrost control with TXV permits low ambient cooling to 30°F.

The addition of the BAYLOAM107A low ambient kit permits ambient cooling to 20°F.

Thermostats – Cooling only and heat/cooling (manual and automatic change over). Sub-base to match thermostat and locking thermostat cover.



Trane - by Trane Technologies (NYSE: TT), a global innovator - creates comfortable, energy efficient indoor environments for commercial and residential applications. For more information, please visit trane.com or tranetechnologies.com.



The AHRI Certified mark indicates Trane U.S. Inc. participation in the AHRI Certification program. For verification of individual certified products, go to ahridirectory.org.

Trane has a policy of continuous data improvement and it reserves the right to change design and specifications without notice. We are committed to using environmentally conscious print practices.

4TTR6060N-SUB-1A-EN 05 Aug 2022
Supersedes (New)

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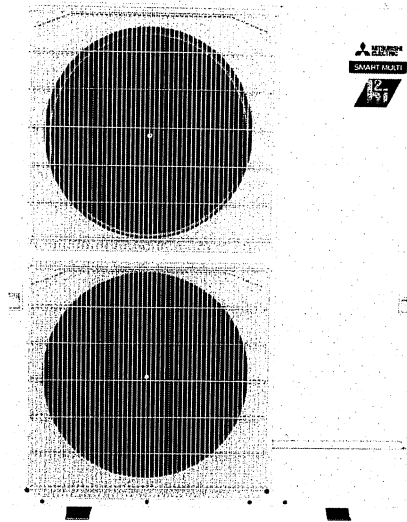
MXZ-SM48NAMHZ 4-TON MULTI-ZONE INVERTER HEAT-PUMP SYSTEM



Job Name:

System Reference:

Date:



FEATURES

- Compatible with M- and P-Series and CITY MULTI® indoor units. Branch box required for connection with M- and P-Series
- Variable speed INVERTER-driven compressor
- Seacoast protection on heat exchanger and base panel (rated for 2,000 hrs in accordance with ASTM B117 testing)
- Thermal Differential 1°F (with PAC-MKA32/52BC only)
- Built-in base pan heater
- Quiet outdoor unit operation, rated sound pressure as low as 51 dB(A)
- High pressure protection
- Compressor thermal protection
- Compressor overcurrent detection
- Fan motor overheating/voltage protection
- Hyper-heating performance offers 100% heating capacity at 5°F and 75% heating capacity at -13°F

ENERGY STAR products are third-party certified by an EPA-recognized Certification Body.

Specifications are subject to change without notice.

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SPECIFICATIONS: MXZ-SM48NAMHZ

| | | | |
|--|---|---------------------------|--|
| Cooling ¹ (Non-Ducted // Mix // Ducted) | Maximum Capacity | BTU/H | 48,000 // 48,000 // 48,000 |
| | Rated Capacity | BTU/H | 48,000 // 48,000 // 48,000 |
| | Minimum Capacity | BTU/H | 16,000 // 16,000 // 16,000 |
| | Maximum Power Input | W | 3,665 // 3,930 // 4,245 |
| | Rated Power Input | W | 3,665 // 3,930 // 4,245 |
| | Power Factor (208V, 230V) | % | 98.5, 98.5 // 98.5, 98.5 // 98.5, 98.5 |
| Heating at 47°F ² (Non-Ducted // Mix // Ducted) | Maximum Capacity | BTU/H | 54,000 // 54,000 // 54,000 |
| | Rated Capacity | BTU/H | 54,000 // 54,000 // 54,000 |
| | Minimum Capacity | BTU/H | 27,000 // 27,000 // 27,000 |
| | Maximum Power Input | W | 3,955 // 4,335 // 4,795 |
| | Rated Power Input | W | 3,955 // 4,335 // 4,795 |
| | Power Factor (208V, 230V) | % | 98.5, 98.5 // 98.5, 98.5 // 98.5, 98.5 |
| Heating at 17°F ³ (Non-Ducted // Mix // Ducted) | Maximum Capacity | BTU/H | 54,000 // 54,000 // 54,000 |
| | Rated Capacity | BTU/H | 39,000 // 39,000 // 39,000 |
| | Maximum Power Input | W | 6,330 // 7,750 // 8,600 |
| | Rated Power Input | W | 4,230 // 4,680 // 5,130 |
| Heating at 5°F ⁴ (Non-Ducted // Mix // Ducted) | Maximum Capacity | BTU/H | 54,000 // 54,000 // 54,000 |
| | Maximum Power Input | W | 7,915 // 8,120 // 8,330 |
| Efficiency (Non-Ducted // Mix // Ducted) | SEER | | 23.0 // 19.75 // 16.5 |
| | EER ¹ | | 13.1 // 12.2 // 11.3 |
| | HSPF (IV) | | 12.0 // 11.5 // 11.0 |
| | COP at 47°F ² | | 4.0 // 3.65 // 3.3 |
| | COP at 17°F at Maximum Capacity ³ | | 2.5 // 2.0 // 1.8 |
| | COP at 5°F at Maximum Capacity ⁴ | | 2.1 // 1.95 // 1.9 |
| | ENERGY STAR® Certified | | Yes // No // No |
| Electrical | Electrical Power Requirements | Voltage, Phase, Frequency | 208/230, 1, 60 |
| | Guaranteed Voltage Range | V AC | 187-253 |
| | Voltage: Indoor - Outdoor, S1-S2 | V AC | 208/230 |
| | Voltage: Indoor - Outdoor, S2-S3 | V DC | 24 |
| | Short-circuit Current Rating (SCCR) | kA | 5 |
| | Recommended Fuse/Breaker Size if Branch Box Powered by Outdoor Unit | A | 40 (45) |
| | Recommended Fuse/Breaker Size without Branch Box or Branch Box Powered Separate | A | 40 |
| | Recommended Wire Size | AWG | 6 |
| | MCA if Branch Box Powered by Outdoor Unit | A | 42.0 |
| | MOCP if Branch Box Powered by Outdoor Unit | A | 50 |
| | MCA without Branch Box or Branch Box Powered Separate | A | 36 |
| | MOCP without Branch Box or Branch Box Powered Separate | A | 40 |
| | Fan Motor Full Load Amperage | A | 0.6+0.6 |
| | Airflow Rate (Cooling / Heating) | CFM | 3,885 / 3,885 |
| Outdoor unit | Refrigerant Control | | LEV |
| | Defrost Method | | Reverse Cycle |
| | Heat Exchanger Type | | Plate fin coil |
| | Heat Exchanger Coating | | Blue Fin Coating |
| | Sound Pressure Level, Cooling ¹ | dB(A) | 51 |
| | Sound Pressure Level, Heating ² | dB(A) | 54 |
| | Compressor Type | | Hermetic |
| | Compressor Model | | ANB33FJSMT |
| | Compressor Motor Output | kW | 3.4 |
| | Compressor Rated Load Amps | A | 19 |
| | Compressor Locked Rotor Amps | A | 22.0 |
| | Compressor Oil Type // Charge | oz. | FV50S // 73 |
| | Base Pan Heater | | Built-in |
| | Unit Dimensions | W: In. [mm] | 41-11/32 [1,050] |
| | | D: In. [mm] | 13 [330] |
| | | H: In. [mm] | 52-11/16 [1,338] |
| | Package Dimensions | W: In. [mm] | 43 [1,090] |
| | | D: In. [mm] | 18 [450] |
| | | H: In. [mm] | 57 [1,430] |
| | Unit Weight | Lbs.[kg] | 278 [126] |
| | Package Weight | Lbs.[kg] | 302 [137] |

NOTES:

AHRI Rated Conditions

(Rated data is determined at a fixed compressor speed)

¹Cooling (Indoor // Outdoor)

²Heating at 47°F (Indoor // Outdoor)

³Heating at 17°F (Indoor // Outdoor)

°F 80 DB, 67 WB // 95 DB, 75 WB

°F 70 DB, 60 WB // 47 DB, 43 WB

°F 70 DB, 60 WB // 17 DB, 15 WB

Conditions

⁴Heating at 5°F (Indoor // Outdoor)

°F 70 DB, 60 WB // 5 DB, 4 WB

*Applications should be restricted to comfort cooling only; equipment cooling applications are not recommended for low ambient temperature conditions.

^A when 1 or more PLA-A-EA7 connected

^B Branch box should be placed within the level between the outdoor unit and indoor units

^C 5°F DB - 115°F DB when optional wind baffles are installed

For actual capacity performance based on indoor unit type and number of indoor units connected, please refer to MXZ Operational Performance.

Although the maximum connectable capacity is 130%, the outdoor unit cannot provide more than 100% of the rated capacity. Please utilize this over capacity capability for load shedding or applications where it is known that all connected units will NOT be operating at the same time.

SPECIFICATIONS: MXZ-SM48NAMHZ

| | | | |
|--|--|---------|-----------------------|
| Outdoor unit operating temperature range | Cooling Intake Air Temp (Maximum / Minimum) | *FDB | 115 / 23 ^c |
| | Cooling Thermal Lock-out / Re-start Temperatures | *FDB | N/A / N/A |
| | Heating Intake Air Temp (Maximum / Minimum) | *FDB | 59 / -13 |
| | Heating Thermal Lock-out / Re-start Temperatures | *FDB | -24 / -14 |
| Refrigerant | Maximum Charge Quantity | Lbs, oz | 10.0, 9.0 |
| Indoor unit connection | Maximum Number of Connected IDU with Branch Box | | 8 (6) ^a |
| | Maximum Number of Connected IDU without Branch Box | | 12 |
| | Minimum Number of Connected IDU with Branch Box | | 12,000 |
| | Minimum Number of Connected IDU without Branch Box | | 24,000 |
| | Maximum connected capacity | | 62,000 |
| Piping | Liquid Pipe Size O.D. (Flared) | In.[mm] | 3/8 [9.52] |
| | Gas Pipe Size O.D. (Flared) | In.[mm] | 5/8 [15.88] |
| | Total Piping Length when using Branch Box | Ft. [m] | 492 [150] |
| | Total Piping Length without Branch Box | Ft. [m] | 984 [300] |
| | Maximum Height Difference ^b , ODU above IDU | Ft. [m] | 164 [50] |
| | Maximum Height Difference ^b , ODU below IDU | Ft. [m] | 131 [40] |
| | Maximum Height Difference ^b , between branch boxes | Ft. [m] | 49 [15] |
| | Maximum Height Difference between IDU and IDU without branch box | Ft. [m] | 49 [15] |
| | | Ft. [m] | 49 [15] |
| | Maximum Piping Length between ODU and Branch Box | Ft. [m] | 180 [55] |
| | Farthest Piping Length from ODU to IDU with Branch Box | Ft. [m] | 262 [80] |
| | Farthest Piping Length from ODU to IDU without Branch Box | Ft. [m] | 492 [150] |
| | Farthest Piping Length after Branch Box | Ft. [m] | 82 [25] |
| | Total Piping Length between Branch Boxes and IDU | Ft. [m] | 311 [95] |
| | Maximum Number of Bends for IDU | | 15 |

NOTES:

AHRI Rated Conditions

(Rated data is determined at a fixed compressor speed)

¹Cooling (Indoor // Outdoor)

*F 80 DB, 67 WB // 95 DB, 75 WB

²Heating at 47°F (Indoor // Outdoor)

*F 70 DB, 60 WB // 47 DB, 43 WB

³Heating at 17°F (Indoor // Outdoor)

*F 70 DB, 60 WB // 17 DB, 15 WB

Conditions

⁴Heating at 5°F (Indoor // Outdoor)

*F 70 DB, 60 WB // 5 DB, 4 WB

*Applications should be restricted to comfort cooling only; equipment cooling applications are not recommended for low ambient temperature conditions.

^a when 1 or more PLA-A-EA7 connected

^b Branch box should be placed within the level between the outdoor unit and indoor units

^c 5°F DB - 115°F DB when optional wind baffles are installed

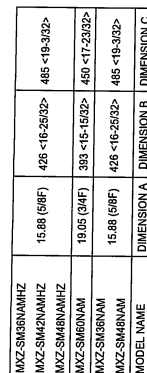
For actual capacity performance based on indoor unit type and number of indoor units connected, please refer to MXZ Operational Performance.

Although the maximum connectable capacity is 130%, the outdoor unit cannot provide more than 100% of the rated capacity. Please utilize this over capacity capability for load shedding or applications where it is known that all connected units will NOT be operating at the same time.

OUTDOOR UNIT ACCESSORIES: MXZ-SM48NAMHZ

| | | |
|-----------------------|--|---|
| Air Deflector | Vertical Air Deflector | <input type="checkbox"/> ADV-1 |
| Air Outlet Guide | Air Outlet Guide (1 Piece) | <input type="checkbox"/> PAC-SH96SG-E (two pieces are required) |
| Ball Valve | Refrigeration Ball Valve - 1/2" | <input type="checkbox"/> BV12FFSI2 |
| | Refrigeration Ball Valve - 1/4" | <input type="checkbox"/> BV14FFSI2 |
| | Refrigeration Ball Valve - 3/8" | <input type="checkbox"/> BV38FFSI2 |
| | Refrigeration Ball Valve - 5/8" | <input type="checkbox"/> BV58FFSI2 |
| Branch Box | 3 Port Branch Box | <input type="checkbox"/> PAC-MKA32BC |
| | 5 Port Branch Box | <input type="checkbox"/> PAC-MKA52BC |
| | Branch Box Enclosure | <input type="checkbox"/> BBE-1 |
| Centralized Drain Pan | Central Drain Pan | <input type="checkbox"/> PAC-SH97DP-E |
| Control Wire | M-Net Control Wire, 1,000' Roll (16-AWG, Standard, Twisted Pair, Shielded, Jacketed- Plenum rated) | <input type="checkbox"/> CW162S-1000 |
| | M-Net Control Wire, 250' Roll (16-AWG, Standard, Twisted Pair, Shielded, Jacketed- Plenum rated) | <input type="checkbox"/> CW162S-250 |
| Control/Service Tool | Maintenance Tool Interface | <input type="checkbox"/> PAC-USCMS-MN-1 |
| Distribution pipe | Brazed Connection | <input type="checkbox"/> MSDD-50BR-E |
| | Flare Connection | <input type="checkbox"/> MSDD-50AR-E |
| Drain Socket | Drain Socket | <input type="checkbox"/> PAC-SG60DS-E |
| Hail Guards | Hail Guard | <input type="checkbox"/> HG-A2 |
| Mini-Split Wire | 14 Gauge, 4 wire MiniSplit Cable—250 ft. roll | <input type="checkbox"/> S144-250 |
| | 14 Gauge, 4 wire MiniSplit Cable—250 ft. roll | <input type="checkbox"/> SW144-250 |
| | 14 Gauge, 4 wire MiniSplit Cable—50 ft. roll | <input type="checkbox"/> S144-50 |
| | 14 Gauge, 4 wire MiniSplit Cable—50 ft. roll | <input type="checkbox"/> SW144-50 |
| | 16 Gauge, 4 wire MiniSplit Cable—250 ft. roll | <input type="checkbox"/> S164-250 |
| | 16 Gauge, 4 wire MiniSplit Cable—250 ft. roll | <input type="checkbox"/> SW164-250 |
| | 16 Gauge, 4 wire MiniSplit Cable—50 ft. roll | <input type="checkbox"/> S164-50 |
| | 16 Gauge, 4 wire MiniSplit Cable—50 ft. roll | <input type="checkbox"/> SW164-50 |
| Mounting Pad | Condensing Unit Mounting Pad: 24" x 42" x 3" | <input type="checkbox"/> ULTRILITE2 |
| | Outdoor Unit 3-1/4 inch Mounting Base (Pair) - Plastic | <input type="checkbox"/> DSD-400P |
| Port Adapter | Adaptor: 1/2" x 3/8" | <input type="checkbox"/> MAC-A455JP-E |
| | Adaptor: 1/2" x 5/8" | <input type="checkbox"/> MAC-A456JP-E |
| | Adaptor: 3/8" x 1/2" | <input type="checkbox"/> MAC-A454JP-E |
| | Adaptor: 3/8" x 5/8" | <input type="checkbox"/> PAC-SG76RJ-E |
| Stand | 18" Dual Fan Stand | <input type="checkbox"/> QSMS1802M |
| | 24" Dual Fan Stand | <input type="checkbox"/> QSMS2402M |
| | Condenser Wall Bracket | <input type="checkbox"/> QSWB2000M-1 |
| | Condenser Wall Bracket - Stainless Steel Finish | <input type="checkbox"/> QSWBSS |
| | Outdoor Unit Stand — 12" High | <input type="checkbox"/> QSMS1202M |
| Wind Baffle | Front Wind Baffle | <input type="checkbox"/> WB-PA3 (two pieces are required) |

Unit: mm
<inch>

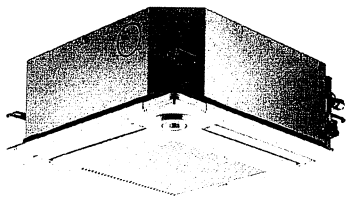


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Job Name:

System Reference:

Date:



GENERAL FEATURES

- Square edge, sleek design
- 3D i-see Sensor™ available as an option
- Improved installation features*
- Occupancy detection*
- Energy saving features*
- Improved occupant comfort
- Four fan speed settings including auto-fan
- Individual vane settings
- 2' x 2' size matches size of many ceiling tiles
- Corner-pocket design for simplified installation
- Built-in condensate lift mechanism designed to provide up to 33" of lift
- Ventilation air intake supported

*Requires a PAR-33MAA-J controller

| Specifications | | | System |
|---|------------------------|--|--|
| Unit Type | | | PLFY-P18NFMU-E |
| Cooling capacity (Nominal) ¹ | | BTU/H | 18,000 |
| Heating capacity (Nominal) ¹ | | BTU/H | 20,000 |
| Power source | | Voltage, Phase, Hertz | 208/230V, 1-phase, 60 Hz |
| Power Consumption | Cooling | kW | 0.04 |
| | Heating | kW | 0.04 |
| Current | Cooling | A | 0.4 |
| | Heating | A | 0.35 |
| MCA | | A | 0.5 |
| Maximum Overcurrent Protection (MOCP) | | A | 15 |
| External finish | | Galvanized steel sheet | |
| External Dimensions | | In. [mm] | 22-7/16 x 22-7/16 x 8-3/16 [570 x 570 x 208] |
| Net weight | | Lbs [kg] | 31.3 [14.2] |
| Heat exchanger | | Cross fin (Aluminum fin and copper tube) | |
| Fan | Type x quantity | Turbo fan x 1 | |
| | Airflow rate | CFM | 230-265-280 |
| | Motor type | DC motor | |
| | Motor Output | kW | 0.05 |
| | Motor FLA | A | 0.19 |
| Air filter | | PP honeycomb fabric (long life type) | |
| Refrigerant | Type | R410A | |
| | | | |
| Diameter of refrigerant pipe (O.D.) | Liquid (High Pressure) | In. [mm] | 1/4 [6.35] Flare |
| | Gas (Low Pressure) | In. [mm] | 1/2 [12.7] Flare |
| Diameter of drain pipe | | In. [mm] | O.D. 1-1/4 [32] |

NOTES:

¹Cooling / Heating capacity indicated at the maximum value at operation under the following conditions:

Cooling | Indoor: 80° F (26.7° C) DB / 67° F (19.4° C) WB; Outdoor 95° F (35° C) DB

Heating | Indoor: 70° F (21.1° C) DB; Outdoor 47° F (8.3° C) DB / 43° F (6.1° C) WB

INDOOR UNIT ACCESSORIES: PLFY-P18NFMU-E

| | | |
|----------------------------|---|--|
| Control Interface | BACnet® and Modbus® Interface | <input type="checkbox"/> PAC-UKPRC001-CN-1 |
| | Connector cable for remote display | <input type="checkbox"/> PAC-SA88HA-EP |
| | IT Extender | <input type="checkbox"/> PAC-WHS01IE-E |
| | kumo station® for kumo cloud® | <input type="checkbox"/> PAC-WHS01HC-E |
| | Thermostat Interface | <input type="checkbox"/> PAC-US444CN-1 |
| | Thermostat Interface | <input type="checkbox"/> PAC-US445CN-1 |
| Remote Sensor | Remote Temperature Sensor | <input type="checkbox"/> PAC-SE41TS-E |
| Terminal Signal Adapter | Terminal Signal Adapter | <input type="checkbox"/> PAC-IT51AD-E |
| | Terminal Signal Adapter | <input type="checkbox"/> PAC-IT52AD-E |
| Wired Remote Controller | Deluxe Wired MA Remote Controller† | <input type="checkbox"/> PAR-40MAAU |
| | Simple MA Remote Controller† | <input type="checkbox"/> PAC-YT53CRAU-J |
| | Smart ME Remote Controller - Backlit touchscreen | <input type="checkbox"/> PAR-U01MEDU-K |
| | Touch MA Controller† | <input type="checkbox"/> PAR-CT01MAU-SB |
| Wireless Remote Controller | kumo touch™ RedLINK™ Wireless Controller | <input type="checkbox"/> MHK2 |
| | Wireless MA Receiver | <input type="checkbox"/> PAR-FA32MA-W |
| | Wireless MA Remote Controller | <input type="checkbox"/> PAR-FL32MA-E |
| | Wireless Receiver | <input type="checkbox"/> PAR-SF9FA-E |
| | Wireless Remote Controller | <input type="checkbox"/> PAR-SL101A-E |
| | Wireless Signal Receiver Panel | <input type="checkbox"/> PAR-SR4LU-E |
| Condensate | Blue Diamond (Advanced) Mini Condensate Pump w/ Reservoir & Sensor (208/230V) [recommended] | <input type="checkbox"/> X87-721 |
| | Blue Diamond (MicroBlue) Mini Condensate Pump (110/208/230V) up to 18,000 BTU/H | <input type="checkbox"/> X86-003 |
| | Refo Condensate Pump (100-240 VAC) up to 120,000 BTU/H | <input type="checkbox"/> COMBI |
| Control Interface | CN24 Relay Kit | <input type="checkbox"/> CN24RELAY-KIT-CM3 |
| | Remote Operation Adapter† | <input type="checkbox"/> PAC-SF40RM-E |
| i-see Sensor® Panel | 3D i-see Sensor® Corner Panel | <input type="checkbox"/> PAC-SF1ME-E |
| | Grille with 3D i-see Sensor® | <input type="checkbox"/> SLP-18FAEU |

NOTES:

†PAC-SF40RM-E (Unable to use with wireless remote controller)

Unit: inch

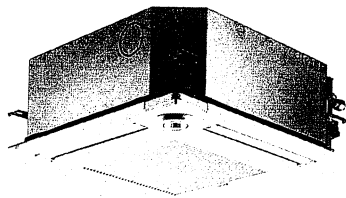


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Job Name:

System Reference:

Date:

**GENERAL FEATURES**

- Square edge, sleek design
- 3D i-see Sensor™ available as an option
- Improved installation features*
- Occupancy detection*
- Energy saving features*
- Improved occupant comfort
- Four fan speed settings including auto-fan
- Individual vane settings
- 2' x 2' size matches size of many ceiling tiles
- Corner-pocket design for simplified installation
- Built-in condensate lift mechanism designed to provide up to 33" of lift
- Ventilation air intake supported

*Requires a PAR-33MAA-J controller

| Specifications | | | System |
|---|------------------------|--|--|
| Unit Type | | | PLFY-P08NFMU-E |
| Cooling capacity (Nominal) ¹ | | BTU/H | 8,000 |
| Heating capacity (Nominal) ¹ | | BTU/H | 9,000 |
| Power source | | Voltage, Phase, Hertz | 208/230V, 1-phase, 60 Hz |
| Power Consumption | Cooling | kW | 0.02 |
| | Heating | kW | 0.02 |
| Current | Cooling | A | .22 |
| | Heating | A | 0.17 |
| MCA | | A | 0.3 |
| Maximum Overcurrent Protection (MOCP) | | A | 15 |
| External finish | | Galvanized steel sheet | |
| External Dimensions | | In. [mm] | 22-7/16 x 22-7/16 x 8-3/16 [570 x 570 x 208] |
| Net weight | | Lbs [kg] | 28.9 [13.1] |
| Heat exchanger | | Cross fin (Aluminum fin and copper tube) | |
| Fan | Type x quantity | Turbo fan x 1 | |
| | Airflow rate | CFM | 265-315-390 |
| | Motor type | DC motor | |
| | Motor Output | kW | 0.05 |
| | Motor FLA | A | 0.28 |
| Air filter | | PP honeycomb fabric (long life type) | |
| Refrigerant | | Type | R410A |
| Diameter of refrigerant pipe (O.D.) | Liquid (High Pressure) | In. [mm] | 1/4 [6.35] Flare |
| | Gas (Low Pressure) | In. [mm] | 1/2 [12.7] Flare |
| Diameter of drain pipe | | In. [mm] | O.D. 1-1/4 [32] |

NOTES:¹Cooling / Heating capacity indicated at the maximum value at operation under the following conditions:

Cooling | Indoor: 80° F (26.7° C) DB / 67° F (19.4° C) WB; Outdoor 95° F (35° C) DB

Heating | Indoor: 70° F (21.1° C) DB; Outdoor 47° F (8.3° C) DB / 43° F (6.1° C) WB

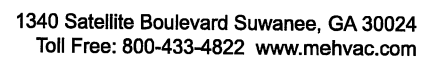
INDOOR UNIT ACCESSORIES: PLFY-P08NFMU-E

| | | |
|----------------------------|---|--|
| Control Interface | BACnet® and Modbus® Interface | <input type="checkbox"/> PAC-UKPRC001-CN-1 |
| | Connector cable for remote display | <input type="checkbox"/> PAC-SA88HA-EP |
| | IT Extender | <input type="checkbox"/> PAC-WHS01IE-E |
| | kumo station® for kumo cloud® | <input type="checkbox"/> PAC-WHS01HC-E |
| | Thermostat Interface | <input type="checkbox"/> PAC-US444CN-1 |
| | Thermostat Interface | <input type="checkbox"/> PAC-US445CN-1 |
| Remote Sensor | Flush Mount Remote Temperature Sensor | <input type="checkbox"/> PAC-USSEN002-FM-1 |
| | Flush Mount Temperature Sensor | <input type="checkbox"/> PAC-USSEN001-FM-1 |
| | Remote Temperature Sensor | <input type="checkbox"/> PAC-SE41TS-E |
| Terminal Signal Adapter | Terminal Signal Adapter | <input type="checkbox"/> PAC-IT51AD-E |
| | Terminal Signal Adapter | <input type="checkbox"/> PAC-IT52AD-E |
| Wired Remote Controller | Deluxe Wired MA Remote Controller† | <input type="checkbox"/> PAR-40MAAU |
| | Simple MA Remote Controller† | <input type="checkbox"/> PAC-YT53CRAU-J |
| | Smart ME Remote Controller - Backlit touchscreen | <input type="checkbox"/> PAR-U01MEDU-K |
| | Touch MA Controller† | <input type="checkbox"/> PAR-CT01MAU-SB |
| Wireless Remote Controller | kumo touch™ RedLINK™ Wireless Controller | <input type="checkbox"/> MHK2 |
| | Wireless MA Receiver | <input type="checkbox"/> PAR-FA32MA-W |
| | Wireless MA Remote Controller | <input type="checkbox"/> PAR-FL32MA-E |
| | Wireless Receiver | <input type="checkbox"/> PAR-SF9FA-E |
| | Wireless Remote Controller | <input type="checkbox"/> PAR-SL101A-E |
| | Wireless Signal Receiver Panel | <input type="checkbox"/> PAR-SR4LU-E |
| Condensate | Blue Diamond (Advanced) Mini Condensate Pump w/ Reservoir & Sensor (208/230V) [recommended] | <input type="checkbox"/> X87-721 |
| | Blue Diamond (MicroBlue) Mini Condensate Pump (110/208/230V) up to 18,000 BTU/H | <input type="checkbox"/> X86-003 |
| | Refco Condensate Pump (100-240 VAC) up to 120,000 BTU/H | <input type="checkbox"/> COMBI |
| Control Interface | CN24 Relay Kit | <input type="checkbox"/> CN24RELAY-KIT-CM3 |
| | Remote Operation Adapter‡ | <input type="checkbox"/> PAC-SF40RM-E |
| i-see Sensor® Panel | 3D i-see Sensor® Corner Panel | <input type="checkbox"/> PAC-SF1ME-E |
| | Grille with 3D i-see Sensor® | <input type="checkbox"/> SLP-18FAEU |

NOTES:

†PAC-SF40RM-E (Unable to use with wireless remote controller)

Unit: inch



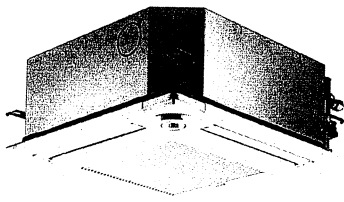
Specifications are subject to change without notice.

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Job Name:

System Reference:

Date:

**GENERAL FEATURES**

- Square edge, sleek design
- 3D i-see Sensor™ available as an option
- Improved installation features*
- Occupancy detection*
- Energy saving features*
- Improved occupant comfort
- Four fan speed settings including auto-fan
- Individual vane settings
- 2' x 2' size matches size of many ceiling tiles
- Corner-pocket design for simplified installation
- Built-in condensate lift mechanism designed to provide up to 33" of lift
- Ventilation air intake supported

*Requires a PAR-33MAA-J controller

| Specifications | | | System |
|--|------------------------|----------|--|
| Unit Type | | | PLFY-P05NFMU-E |
| Cooling capacity (Nominal) ¹ | | BTU/H | 5,000 |
| Heating capacity (Nominal) ¹ | | BTU/H | 5,600 |
| Power Source | Voltage, Phase, Hertz | | 208/230, 1, 60 |
| Power Consumption | Cooling | kW | 0.02 |
| | Heating | kW | 0.02 |
| Current | Cooling | A | 0.19 |
| | Heating | A | 0.14 |
| MCA | | A | 0.24 |
| Maximum Overcurrent Protection (MOCP) | | A | 15 |
| External finish | | | Galvanized steel sheet |
| External Dimensions | | | |
| Net weight | | In. [mm] | 22-7/16 x 22-7/16 x 8-3/16 [570 x 570 x 208] |
| Heat exchanger | | Lbs [kg] | 28.9 [13.1] |
| Fan | Type x quantity | | Cross fin (Aluminum fin and copper tube) |
| | Airflow rate | | Turbo fan x 1 |
| | Motor type | CFM | 230–265–280 |
| | Motor Output | | DC motor |
| | Motor FLA | kW | 0.05 |
| Sound pressure level (Measured in anechoic room) | | A | 0.19 |
| Air filter | | dB(A) | 26–28–30 |
| Refrigerant | Type | | PP honeycomb fabric (long life type) |
| | | | R410A |
| Diameter of refrigerant pipe (O.D.) | Liquid (High Pressure) | In. [mm] | 3/8 [9.52] Flare |
| | Gas (Low Pressure) | In. [mm] | 5/8 [15.88] Flare |
| Diameter of drain pipe | | In. [mm] | O.D. 1-1/4 [32] |

NOTES:¹Cooling / Heating capacity indicated at the maximum value at operation under the following conditions:

Cooling | Indoor: 80° F (26.7° C) DB / 67° F (19.4° C) WB; Outdoor 95° F (35° C) DB

Heating | Indoor: 70° F (21.1° C) DB; Outdoor 47° F (8.3° C) DB / 43° F (6.1° C) WB

INDOOR UNIT ACCESSORIES: PLFY-P05NFMU-E

| | | |
|----------------------------|---|--|
| Control Interface | BACnet® and Modbus® Interface | <input type="checkbox"/> PAC-UKPRC001-CN-1 |
| | Connector cable for remote display | <input type="checkbox"/> PAC-SA88HA-EP |
| | IT Extender | <input type="checkbox"/> PAC-WHS01IE-E |
| | kumo station® for kumo cloud® | <input type="checkbox"/> PAC-WHS01HC-E |
| | Thermostat Interface | <input type="checkbox"/> PAC-US444CN-1 |
| | Thermostat Interface | <input type="checkbox"/> PAC-US445CN-1 |
| Remote Sensor | Flush Mount Remote Temperature Sensor | <input type="checkbox"/> PAC-USSEN002-FM-1 |
| | Flush Mount Temperature Sensor | <input type="checkbox"/> PAC-USSEN001-FM-1 |
| | Remote Temperature Sensor | <input type="checkbox"/> PAC-SE41TS-E |
| Terminal Signal Adapter | Terminal Signal Adapter | <input type="checkbox"/> PAC-IT51AD-E |
| | Terminal Signal Adapter | <input type="checkbox"/> PAC-IT52AD-E |
| Wired Remote Controller | Deluxe Wired MA Remote Controller† | <input type="checkbox"/> PAR-40MAAU |
| | Simple MA Remote Controller† | <input type="checkbox"/> PAC-YT53CRAU-J |
| | Smart ME Remote Controller - Backlit touchscreen | <input type="checkbox"/> PAR-U01MEDU-K |
| | Touch MA Controller† | <input type="checkbox"/> PAR-CT01MAU-SB |
| Wireless Remote Controller | kumo touch™ RedLINK™ Wireless Controller | <input type="checkbox"/> MHK2 |
| | Wireless MA Receiver | <input type="checkbox"/> PAR-FA32MA-W |
| | Wireless MA Remote Controller | <input type="checkbox"/> PAR-FL32MA-E |
| | Wireless Receiver | <input type="checkbox"/> PAR-SF9FA-E |
| | Wireless Remote Controller | <input type="checkbox"/> PAR-SL101A-E |
| | Wireless Signal Receiver Panel | <input type="checkbox"/> PAR-SR4LU-E |
| Condensate | Blue Diamond (Advanced) Mini Condensate Pump w/ Reservoir & Sensor (208/230V) [recommended] | <input type="checkbox"/> X87-721 |
| | Blue Diamond (MicroBlue) Mini Condensate Pump (110/208/230V) up to 18,000 BTU/H | <input type="checkbox"/> X86-003 |
| | Refco Condensate Pump (100-240 VAC) up to 120,000 BTU/H | <input type="checkbox"/> COMBI |
| Control Interface | CN24 Relay Kit | <input type="checkbox"/> CN24RELAY-KIT-CM3 |
| | Remote Operation Adapter† | <input type="checkbox"/> PAC-SF40RM-E |
| Grille | Grille | <input type="checkbox"/> SLP-18FAU |
| i-see Sensor® Panel | 3D i-see Sensor® Corner Panel | <input type="checkbox"/> PAC-SF1ME-E |
| | Grille with 3D i-see Sensor® | <input type="checkbox"/> SLP-18FAEU |

NOTES:

†PAC-SF40RM-E (Unable to use with wireless remote controller)

Unit: inch



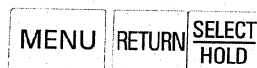
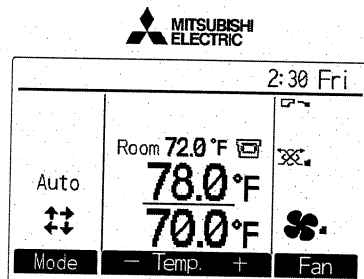
Model: PAR-40MAAU Deluxe MA Remote Controller



Job Name:

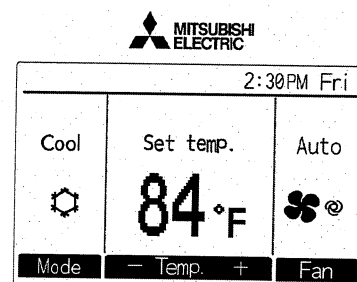
System Reference:

Date:



ON
OFF

FULL VIEW



ON
OFF

BASIC VIEW

OPERATION/DISPLAY

- ON/OFF
 - Switches between ON and OFF.
- Operation mode switching
 - Switches between Cool/Dry/Fan/Auto/Setback/Heat.
- Hold
 - Switches between enable and disable the Hold function.
 - If the Hold function is enable, the following functions will be prohibited.
 - ON/OFF timer/Schedule (Weekly timer) /Auto return/Auto-OFF timer
- Temperature setting
 - Changes the set temperature.
 - Set temperature range varies depending on the indoor unit model.
- Fan speed setting
 - Changes fan speed.
 - Available fan speeds vary depending on the model.
- Air flow direction setting
 - Changes airflow direction.
 - Available airflow directions vary depending on the model.
- Louver setting
 - Switches between louver ON/OFF.
- Ventilation equipment control
 - Interlocked setting and interlocked operation setting with City Multi Lossnay units can be performed.
 - The Stop/Low/High settings of the ventilation equipment can be controlled.
- Main display mode setting
 - The Main display can be displayed in two different modes: "Full" and "Basic."
- B&W inversion
 - The colors of the display can be inverted, turning white background to black and black characters to white.

- Clock ^{*2}
 - Date (year/month/day) and time (hour/minute) can be set.
 - The set time as well as the day of the week will be displayed on the Main display.
 - It is also possible for the time to not display on the main display.
 - The clock can be displayed in 12-hour format (AM/PM before or after the time) and 24-hour format.
- Daylight saving time
 - The start/end time for daylight saving time can be set.
 - The daylight saving time function will be activated based on the setting contents.
- Room temp. display
 - The room temperature display can be enabled or disabled.
- Error information
 - When an error occurs, an error code and the unit address appear.
 - The air-conditioning unit model, serial number, and contact number can be set to appear when an error occurs. (The above information needs to be entered in advance.)
- Filter information
 - A filter sign will appear when it is time to clean the filter.
- Remote controller information
 - The version of the remote controller can be checked.

^{*1} This function is active only for the units that support the function.

^{*2} The clock is accurate within 45 seconds per month (at the temperature of 77°F [25°C]). The clock is backed up for 3 days.

Model: PAR-40MAAU

SCHEDULE AND TIMER SETTING

- Timer
 - ON/OFF timer
 - Turns ON and OFF daily at a set time.
 - Time can be set in 5-minute increments.
 - It is also possible to set the ON time only or the OFF time only.
 - Auto-OFF timer
 - Turns off the unit after a certain period of operation.
 - Operation time can be set to a value from 30 to 240 minutes in 10-minute increments.
- Weekly timer
 - Weekly ON/OFF times and set temperatures can be set.
 - Time can be set in 5-minute increments. Up to 8 schedule patterns can be set per day of the week.
 - Not valid when the ON/OFF timer is set.

RESTRICTION SETTINGS

- Allows/disallows local operation
 - The following operation can be prohibited by applying certain settings on the centralized controller: ON/OFF, operation mode, set temperature, filter sign reset, air direction, fan speed and timer.
 - While an operation is prohibited, the operation icon lights up (only on the Main display in the "Full" mode).
- Operation lock
 - The following operations can be prohibited: Sensing Location, ON/OFF, Mode, Set temp., Menu, Fan, Louver, Vane, or Hold
- Temperature range restriction
 - The room temperature range for each operation mode can be restricted.
- Auto return
 - The units operate at the preset temperature after a designated period.
 - Time can be set to a value from 30 to 120 minutes in 10-minute increments.
 - Not valid when the temperature setting range is restricted.
- Password
 - Administrator password (required for schedule setting etc.) and Maintenance password (required for test run and function setting etc.) can be set.

MISCELLANEOUS ITEMS

- Language Selection
 - Select the display language from the following 3 languages.
 - English, French, Spanish
- Brightness Contrast
 - The brightness of the LCD can be adjusted. The contrast of the LCD can be adjusted.
- Manual Vane Angle *1
 - Fixes the vane position for each air outlet.
- Service *1
 - Contains Test run, Function setting, Request code, and Error history.
- 3D i-see Sensor®
 - Settings for 3D i-see Sensor® can be made.

ENERGY SAVING OPTION

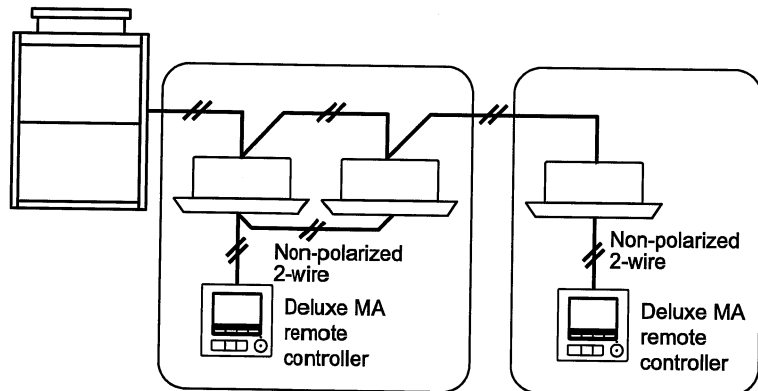
- No occupancy energy save
 - Requires 3D i-see Sensor® on applicable indoor units
- Room Occupancy energy save
 - Requires 3D i-see Sensor® on applicable indoor units
- No occupancy Auto-OFF
 - Requires 3D i-see Sensor® on applicable indoor units
- Setback Mode

*1 This function is active only for the units that support the function.

*2 The clock is accurate within 45 seconds per month (at the temperature of 77°F [25°C]). The clock is backed up for 3 days.

SYSTEM EXAMPLE

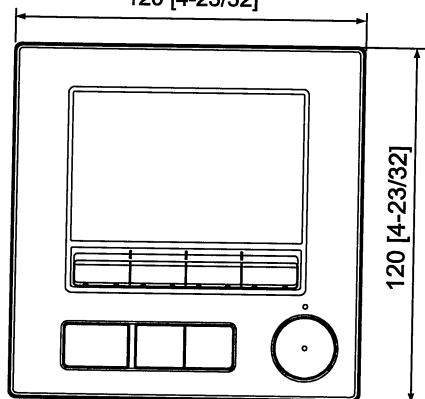
*When a PAR-40MAAU is connected to a group, no other MA remote controllers can be connected to the same group.



Model: PAR-40MAAU

DIMENSIONS

(Front view)
120 [4-23/32]

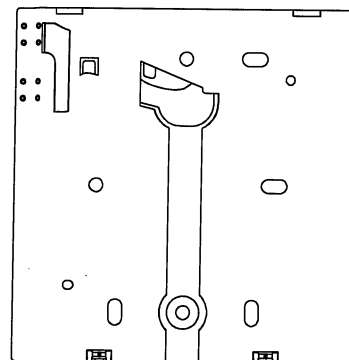


(Side view)
14.5 [37/64]



(Rear view)

Unit: mm [in.]



COMPATIBILITY CHART

| CITY MULTI® | | M-Series | | P-Series | |
|-------------|-----|---|--|----------|-----|
| PMFY-NBMU | Yes | MFZ-KA | MAC-334 | PCA | Yes |
| PEFY-NMU | Yes | MFZ-KJ | MAC-334 | PEA | Yes |
| PEFY-NMAU | Yes | MSZ/Y-A | No | PEAD | Yes |
| PEFY-NMHSU | Yes | MSZ/Y-D | NA: No NA-8: MAC-334 | PKA | Yes |
| PEFY-NMLU | Yes | MS-WA | No | PLA | Yes |
| PEFY-NMSU | Yes | MSZ-FD | No | PVA | Yes |
| PLFY-NAMU | Yes | MSZ-FE | 09(12)NA: No 09(12)NA-8: MAC-334 18NA: Yes ¹ | | |
| PLFY-NBMU | Yes | MSZ/Y-GE | 06(-18)NA: No NA-8: MAC-334 NA-9: MAC-334 GE24NA: MAC-334 | | |
| PLFY-NCMU | Yes | MSZ/Y-GL | MAC-334 | | |
| PLFY-NEMU | Yes | MSZ/Y-GS | MAC-334 | | |
| PLFY-NFMU | Yes | MSZ-FH | MAC-334 | | |
| PLFY-NLMU | Yes | MSZ-FS | MAC-334 | | |
| PCFY-VKM | Yes | MSZ-HE | No | | |
| PCFY-NGMU | Yes | MSZ-HM | MAC-334 | | |
| PCFY-NKMU | Yes | MVZ-AA4 | Yes | | |
| PFFY-NEMU | Yes | MVZ-AA7 | Yes | | |
| PFFY-NRMU | Yes | SVZ-KP | Yes | | |
| PV FY-E00 | Yes | SEZ-KD | No | | |
| PV FY-NAMU | Yes | SEZ-KD4 | Yes | | |
| PKFY-NAMU | Yes | SLZ-KA | Yes | | |
| PKFY-NFMU | Yes | SLZ-KF | Yes | | |
| PKFY-NGMU | Yes | MLZ-KP | MAC-334 | | |
| PKFY-NBMU | Yes | Note: MAC-334 indicates that the unit requires a MAC-334IF-E Adapter in order to use the PAR-40MAAU. | | | |
| PKFY-NH MU | Yes | | | | |
| PKFY-NK MU | Yes | | | | |

SPECIFICATIONS

| | | |
|-------------------------------|--------------|---|
| Product size (W x H x D) | In. (mm) | 4 3/4 x 4 3/4 x 0.57 (120 x 120 x 14.5) |
| Net Weight | Lbs. (kg) | 9/16 (0.25) |
| Rated Power Supply Voltage | | 12 VDC (supplied from indoor units) |
| Power Consumption | W | 0.3 |
| Usage Environment | | Temperature: 0 to 40° C (32 to 104° F) Humidity: 30 to 90%RH (with no condensation) |
| Material | Panel | PMMA |
| | Main body | PC + ABS |
| Sound Pressure Level | dB(A) | <70 [A-weighted sound pressure level] |

¹ Per Machinery Directive 2006/42/EC

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