



Keith Stewart, Director

# Prince George's County Public Schools

Louis Wilson Sr., Facilities Administration Building  
13300 Old Marlboro Pike, Room 20  
Upper Marlboro, MD 20772

## NOTICE OF CONTRACT AWARD

December 14, 2022

**Adrian L. Merton INC**  
Attention: Matt Merton  
9151 Hampton Overlook  
Capitol Heights, Maryland 20743  
Phone: 301.336.2700  
Email: [les@almerton.com](mailto:les@almerton.com)

**Eyvette Wright/KB** *Kanien Barnhardt*  
Kanien Barnhardt (Dec 15, 2022 10:22 EST)  
Telephone: 301.952.6571  
Fax: 301.952.6605  
Email: [Eyvette.Wright@PGCPS.org](mailto:Eyvette.Wright@PGCPS.org)

**SUBJECT: Rider Contract: Sourcewell MD-R3-HVAC02-052621-ALM - Chiller Replacement Project at Lake Arbor Academy, Roger Heights Elementary, and Samuel Massie Elementary Schools**

**Adrian L. Merton INC** has been selected as the vendor to provide services to Prince George's County Public Schools (PGCPS) in accordance with the above-mentioned Rider **Sourcewell MD-R3-HVAC02-052621-ALM** under **PGCPS Contract DBS038-23** at Lake Arbor Academy, Roger Heights ES, and Samuel Massie ES. This contract sets-forth the terms and conditions and is provided for your review and acceptance. Any changes or additions made by your company must first be accepted by the Purchasing Division before the contract is valid.

The intent of this contract is to provide the Board with an expedited means of procuring supplies and/or services at the lowest responsible cost. This contract is for the convenience of the Board and is considered by the Board to be a "Non-Exclusive" use contract. The Board does not guarantee any usage. The Board will not be held to purchase any particular Brand, in any groups, prices or discount ranges, but reserves the right to purchase any item/items listed in the price schedule submitted.

Failure to sign the contract award via ADOBE and return all required documents within the specified time, shall rule your offer null and void and, therefore, award shall be made to the next low responsive bidder.

Until the contract is fully executed and a Purchase Order is issued or a Notice to Proceed (NTP) is issued by the Department of Purchasing and Supply Services, authorization for mobilization or commencement of work is forbidden.

### **iSUPPLIER REGISTRATION**

All vendors must be a registered vendor in iSupplier to conduct business with PGCPS.

Vendors must provide their iSupplier Number at the time **Notice of Award is signed**

- If your company is not properly registered as a vendor, PGCPS will not sign the contract. Further, failure to register in iSupplier within the time period specified, shall rule your offer null and void. PGCPS reserves the right to rescind the award notice issued in favor of your company and award the contract to the next lowest responsive bidder.

**Notice of Award**  
**PGCPS DBS023-23**  
**Rider: MD-R3-HVAC02-052621-ALM**

**PERFORMANCE/PAYMENT BOND**

A 100% Performance Bond and 100% Labor and Material Payment Bond or Certified Check in the amount of **\$1,049,664.43** must be submitted to the PURCHASING OFFICE with the returned signed NOTICE OF AWARD WITHIN TEN (10) DAYS. Further, failure to provide the bond within the time period specified, shall rule your offer null and void.

The bond, cashiers or certified check must be made in favor of the **BOARD OF EDUCATION OF PRINCE GEORGE'S COUNTY, UPPER MARLBORO, MARYLAND 20772-9983.**

**INSURANCE**

A Certificate of Insurance, made in favor of the Board of Education of Prince George's County, Upper Marlboro, Maryland 20772-9983, must be on file in order to fully execute the NOTICE OF AWARD. The certificate should reference the Solicitation Number as shown herein. It will be the responsibility of the contractor to ensure that a current Certificate of Insurance is on file in the Purchasing Office during the entire period of the contract.

**CONTRACT AWARD ESTIMATED AMOUNT**

**The amount of award is not to exceed** **\$ 1,049,664.43**

**CONTRACT TERM**

This is a completion contract. The term "completion" is defined as all work has been performed and accepted as outlined in vendor quote under Attachment A, Bid Price. The contract term is through December 13, 2023 or completion of work, whichever occurs first.

**THIS NOTICE OF AWARD IS NOT AN ORDER TO COMMENCE SERVICE/WORK OR TO MAKE DELIVERIES** at this time. Authorization to commence service/work/deliveries *may* be given prior to receipt of purchase order due to the Emergency. If a *Notice to Proceed* has not been issued, work shall not commence until receipt of a **Purchase Order** signed by the Purchasing Agent.

**OPTION TO RENEW CONTRACT**

Upon satisfactory service and by mutual agreement the BOARD OF EDUCATION OF PRINCE GEORGE'S COUNTY reserves the right to renew the contract. The term of renewal shall not exceed available renewal options under **MD-R3-HVAC02-052621-ALM**.

**MBE GOALS**

Prince George's County Public Schools has a Minority Business Enterprise (MBE) Program in effect. Information about this program and forms for compliance are included in the bid documents; the forms can also be downloaded online at: <https://www.pgcps.org/offices/general-counsel>, click on "Administrative Procedures," then click on Business and Non-Instructional Operations -3000 for Administrative Procedure 3325 and attachments.

The vendor shall provide materials, supplies, equipment, and/or services for the scope of work as defined under MD-R3-HVAC02-052621-ALM shall attempt to achieve **15%** participation of Minority Business and/or Small Business Enterprise organizations in response to the Board of Education's goal for economic development.

**LIQUIDATED DAMAGES/FAILURE TO PERFORM WORK**

The successful Awardee accepts this contract with the understanding that should they fail to complete the work in an acceptable manner and in the time stated, shall be subject to the payment of liquidated damages as stated in the proposal document(s).

**AVAILABILITY OF FUNDS**

The contract shall be deemed executory only to the extent of appropriations available to the BOARD for the purchase of such articles. The obligation of the BOARD on all contracts, including those which envision funding through current and successive fiscal years, shall be contingent upon actual Board appropriations for the fiscal year(s) involved.

**Notice of Award**  
**PGCPS DBS023-23**  
**Rider: MD-R3-HVAC02-052621-ALM**

**FINGERPRINT CRIMINAL HISTORY BACKGROUND CHECKS, CHILD PROTECTIVE SERVICE CLEARANCES, AND SAFE SCHOOLS TRAINING REQUIREMENTS**

- a. Pursuant to [Administrative Procedure 4215 - Criminal History Checks, Employee Self-Reporting of Arrests, Criminal Charges, CPS Investigations and Findings & Incarceration](#), any and all Vendors, which includes Independent Contractors, Subcontractors, Outsourced Agency Employees and Outsourced Temporary Staffing, who have uncontrolled access to students must complete a fingerprint criminal history background check, child protective service (CPS) clearance and required online Safe Schools training course(s).
- b. All fingerprint background checks and CPS clearances must be completed 15 business days prior to beginning work in and around PGCPS property or engaging in any authorized activities involving PGCPS students. The fingerprint background checks and CPS clearances must be completed through Prince George's County Public Schools at one of the authorized locations listed on the PGCPS website (<https://www.pgcps.org/fingerprinting/#service>). **No person may begin working in PGCPS until fingerprint background check results are received.**
- c. Required online Safe Schools training course(s) must be completed before providing contractual services in PGCPS schools and can be accessed through the PGCPS website (<https://www.pgcps.org/offices/compliance/student-safety/required-training-for-contractors>).
- d. Safety Management System (reserved).
- e. Pursuant to Md. Education Code Ann. §6-113.2 (Code), a contractor of a Board of Education who provides a service to a school or the students of a school shall meet the requirements set forth for screening its employees assigned to work at a school site to determine whether such employees have a history of child sexual abuse and/or sexual misconduct. The Vendor shall be solely responsible for completing the screening set forth in the Code, shall maintain records of employee screenings, and shall make such records available to PGCPS upon request.
- f. Prior to initiating any work at a school building, current and future employees of Vendor must sign in and sign out via the Raptor Visitor Management System, which requires a copy of their government issued identification.
- g. Prior to initiating any work at a school building, the Vendor agrees to provide the designated PGCPS representative and the PGCPS Purchasing Department with a list of all current employees and an immediate update of changes in personnel, employees, contractors, subcontractors, agents, volunteers, outsourced temporary staff and any instructors. It is the responsibility of the Vendor to make certain that its employees, contractors, subcontractors, agents, volunteers, outsourced temporary staff, consultants and any instructors meet the background check and training requirements specified.

All correspondence should include the following information as applicable:

- i. title of the project
- ii. school/office
- iii. solicitation number
- iv. contract number; and
- v. PGCPS representative/project manager

**Notice of Award  
PGCPS DBS023-23  
Rider: MD-R3-HVAC02-052621-ALM**

**RESTRICTIONS ON EMPLOYEE ASSIGNMENTS**

Vendors are prohibited from assigning the following persons from working at a PGCPS location:

- a. Registered sex offenders (Maryland Code, Criminal Procedure Article Section 11-722)
- b. Individuals convicted of a crime involving third- or fourth-degree sexual offence under sections 3-307 or 3-308 of the Criminal Law Article; child sexual abuse under Section 3-602 of the Criminal Law Article; a crime of violence as defined in Section 14-101 of the Criminal law Article; or comparable offenses in another state. (Annotated Code of Maryland, Education Article Section 6-113)
- c. Individuals identified as an alleged abuse or neglect or following completion of a Child Protective Services investigation with a finding of "indicated" child abuse or neglect.

**PERSONALLY IDENTIFIABLE INFORMATION (PII)**

**Personally Identifiable Information** includes any information that can be associated with or traced to any individual, including an individual's name, address, telephone number, e-mail address, credit card information, social security number, or other similar specific factual information, regardless of the media on which such information is stored (e.g., on paper or electronically) and includes such information that is generated, collected, stored or obtained as part of this Agreement, including transactional and other data pertaining to users. The parties will comply with all applicable privacy and other laws and regulations relating to protection, collection, use, and distribution of Personally Identifiable Information. In no event may PII be sold or transferred to third parties, or otherwise provide third parties with access thereto. If there is a suspected or actual breach of security involving Personally Identifiable Information, the parties will notify each other within twenty-four (24) hours of a management-level employee becoming aware of such occurrence.

**LAWS AND PERMITS**

The contractor shall, without additional cost to the BOARD, be responsible for paying for and obtaining any necessary licenses, inspections and permits for complying with any and all FEDERAL, STATE AND LOCAL LAWS, CODES AND REGULATIONS, in connection with the performance of the work. Laws of the STATE OF MARYLAND and PRINCE GEORGE'S COUNTY shall govern the contract.

This notice of award, plus the solicitation, your offer and any pertinent documents will constitute the entire contract after acceptance by your firm and the BOARD. Please refer to **MD-R3-HVAC02-052621-ALM** for additional terms and conditions.

ACCEPTED BY:

**FOR THE FIRM:**

Matthew Merton

Matthew Merton (Dec 15, 2022 09:11 EST)

SIGNATURE

DATE

Matthew Merton

NAME

Vice President

TITLE

Adrian L. Merton Inc.

FIRM

2631

iSUPPLIER ID #

**FOR THE BOARD OF EDUCATION:**

Keith Stewart

keith.stewart@pgcps.org keith.stewart@pgcps.org (Dec 15, 2022 10:29 EST)

SIGNATURE

DATE

Keith Stewart

NAME:

Director, Purchasing & Supply Services

TITLE

FOR THE BOARD OF EDUCATION  
OF PRINCE GEORGE'S COUNTY

UPPER MARLBORO, MARYLAND 20772

**Notice of Award**  
**PGCPS DBS023-23**  
**Rider: MD-R3-HVAC02-052621-ALM**

**ATTACHMENT A**  
**VENDOR CONTRACT PRICING**  
*\*\*See attached\*\**



9151 HAMPTON OVERLOOK, CAPITOL HEIGHTS, MD 20743 OFFICES  
(301) 336-2700 SERVICE (301) 336-7900 FAX (301) 336-6077

## *Heating & Air Conditioning Specialist*

### Proposal for Chiller Replacement at Lake Arbor Elementary School

August 4, 2022

Garth Deitzer  
13300 Old Marlboro Pike  
Upper Marlboro, MD 20772  
Prince Georges County Public Schools

RE: Replace the air-cooled chiller at Lake Arbor Elementary School

Mr. Deitzer,

1. Disconnect power and piping from the existing chiller
2. Disconnect controls from the chiller.
3. Remove chiller from site.
4. Prepare chiller pad for the new chiller.
5. Set new chiller in the same location as the existing. New chiller will set on vibration pads.
6. Modify and connect piping.
  - a. Install new high performance shut off valves.
  - b. Install new braided flex connectors.
7. Modify and connect electrical power wiring.
8. Connect controls.
9. Test piping.
10. Clean pipe strainers
11. Insulate piping and label.
12. Wrap exterior insulation with aluminum jacket.
13. Start-test and check operations of the chiller by factory technicians.

Cost breakdown:

Materials:

Chiller (per attached submittal)	\$193,246
Piping	\$7,610.00
Piping Specialties (Valves, isolation, thermometers, pressure gauges, etc..)	\$4,082.50
Controls, flow switches, control wiring	\$3,997.00

Paint, stencil, consumables and misc

\$406.85

**\$209,342.35**

Subcontractors:

Crane

\$1,210.00

Insulation

\$12,100.00

Electrical

\$4,950.00

Controls

\$2,860.00

**\$21,120.00**

Labor:

Tech, Welder, Pipefitter: 260 Man Hours, normal working hours @ \$94.00 per hours \$24,440.00

Apprentice/Helper: 260 Man Hours, normal working hours @ \$60.00 per hours \$15,600.00

**\$40,040.00**

Bond

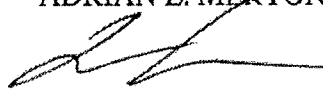
**\$4,058.00**

**Proposal Total:**

**\$274,560.35**

Should you need any additional information, please do not hesitate to call our office at (301) 336-7900.

Very truly yours,  
ADRIAN L. MERTON, INC.



Matthew A. Merton  
Vice President

Acceptance Signature: \_\_\_\_\_



9151 HAMPTON OVERLOOK, CAPITOL HEIGHTS, MD 20743 OFFICES  
(301) 336-2700 SERVICE (301) 336-7900 FAX (301) 336-6077

## *Heating & Air Conditioning Specialist*

### Proposal for Chiller Replacement at Rogers Heights ES

August 4, 2022

Garth Deitzer  
13300 Old Marlboro Pike  
Upper Marlboro, MD 20772  
Prince Georges County Public Schools

RE: Replace the 2 air-cooled chiller at Rogers Heights ES.

Mr. Deitzer,

1. Disconnect power and piping from the existing chillers.
2. Disconnect controls from the chillers.
3. Remove chiller from site.
4. Prepare chiller pad for the new chillers.
5. Set new chiller in the same location as the existing. New chiller will set on vibration pads.
6. Modify and connect piping.
  - a. Install new high performance shut off valves.
  - b. Install new braided flex connectors.
7. Modify and connect electrical power wiring.
8. Connect controls.
9. Test piping.
10. Clean pipe strainers
11. Insulate piping and label.
12. Wrap exterior insulation with aluminum jacket.
13. Start-test and check operations of the chillers by factory technicians.

Cost breakdown:

Materials:

Chiller (per attached submittal)	\$224,330.35
Piping	\$7,610.00
Piping Specialties (Valves, isolation, thermometers, pressure gauges, etc..)	\$4,082.50
Controls, flow switches, control wiring	\$3,997.00

P.O. BOX 3570, CAPITOL HEIGHTS, MD 20791-3570



Paint, stencil, consumables and misc

\$406.85

**\$224,330.35**

Subcontractors:

Crane

\$1,210.00

Insulation

\$14,300.00

Electrical

\$7,150.00

Controls

\$8,580.00

**\$31,240.00**

Labor:

Tech, Welder, Pipefitter: 320 Man Hours, normal working hours @ \$94.00 per hours \$30,080.00

Apprentice/Helper: 320 Man Hours, normal working hours @ \$60.00 per hours \$19,200.00

**\$49,280.00**

Bond

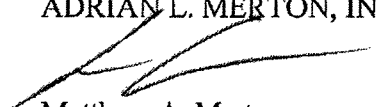
**\$4,524.00**

**Proposal Total:**

**\$309,374.35**

Should you need any additional information, please do not hesitate to call our office at (301) 336-7900.

Very truly yours,  
ADRIAN L. MERTON, INC.

  
Matthew A. Merton  
Vice President

Acceptance Signature: \_\_\_\_\_



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(301) 336-2700 SERVICE (301) 336-7900 FAX (301) 336-6077

*Heating & Air  
Conditioning  
Specialist*

**Samuel Massie Academy Chiller Replacement  
Prince Georges County Public Schools**

December 13, 2022

Site: Samuel Massie Academy  
3301 Regency Parkway  
Forestville, MD 20747

**Scope Of Work**

1. The contractor shall utilize the Sourcewell Cooperative contract MD-R3-HVAC02-052621-ALM to perform the following Detailed Scope of Work.
2. The Contractor shall remove and install two (2) chillers 180-ton air cooled units.
3. The work shall include but not limited to the following:
4. The contractor shall recover the refrigerant from the two existing air-cooled chillers.
5. All piping shall be disconnected
6. The controls shall be disconnected by the control's contractor.
7. All wiring shall be disconnected.
8. The contractor shall remove the chillers and dispose.
9. New vibration pads need to be installed and the chillers installed.
10. Contractor shall connect piping. Install isolation valves. Install strainers. Install balance valves and provide low point drains.
11. Contractor shall install piping insulation with protective aluminum coverings for outdoor use.
12. Contractor shall install service disconnects and install new power wiring from disconnects to chillers.
13. Contractor shall provide a factory startup and provide all training and manuals as required.

**Signature Document**

**EZIQC Contract No.: MD-R3-HVAC02-052621-ALM**

**New Work Order**       **Modify an Existing Work Order**

Number: 095691.00      Date: 11/13/2022  
Title: PGCPS - Samuel Massie Academy - Replace Chiller  
Owner Name: Prince Georges County Public Schools      Contractor Name: Adrian L. Merton Inc.  
Contact: Garth Deitzer      Contact: Matt Merton  
Phone: 301-952-7821      Phone: 301-336-2700

**Work to be Performed**

Work to be performed as per the Final Detailed Scope of Work Attached and as per the terms and conditions of EZIQC Contract No MD-R3-HVAC02-052621-ALM.

Brief Work Order Description:

Replace Chiller

**Time of Performance**      *See Schedule Section of the Detailed Scope of Work*

**Liquidated Damages**      Will apply:       Will not apply:

**Firm Fixed Price: \$465,729.73**

Owner Purchase Order Number:

**Approvals**

\_\_\_\_\_  
Owner

\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Contractor

12/13/2022  
\_\_\_\_\_  
Date

**Detailed Scope of Work Continues..**

**Number:** 095691.00  
**Title:** PGCPS - Samuel Massie Academy - Replace Chiller

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**Contractor**

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**Owner**

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**Date**

## Contractor's Price Proposal - Summary

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**Date:** December 13,2022  
**IQC Master Contract #:** MD-R3-HVAC02-052621-ALM  
**Number:** 095691.00  
**Owner PO #:**  
**Title:** PGCPS - Samuel Massie Academy - Replace Chiller  
**Contractor:** Adrian L. Merton Inc.  
**Proposal Name:** PGCPS - Samuel Massie Academy - Replace Chiller  
**Proposal Value:** \$465,729.73

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<b>01 - General Requirements</b>	<b>\$2,657.19</b>
<b>22 - Plumbing</b>	<b>\$3,449.10</b>
<b>23 - Heating, Ventilating, And Air-Conditioning (HVAC)</b>	<b>\$439,863.00</b>
<b>26 - Electrical</b>	<b>\$19,760.44</b>
<b>Proposal Total</b>	<b>\$465,729.73</b>

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This total represents the correct total for the proposal. Any discrepancy between line totals, sub-totals and the proposal total is due to rounding.

## Contractor's Price Proposal - Detail

**Date:** December 13, 2022021  
**IQC Master Contract #:** MD-R3-HVAC02-052621-ALM  
**Number:** 095691.00  
**Owner PO #:**  
**Title:** PGCPs - Samuel Massie Academy - Replace Chiller  
**Contractor:** Adrian L. Merton Inc.  
**Proposal Name:** PGCPs - Samuel Massie Academy - Replace Chiller  
**Proposal Value:** \$465,729.73

Sect.	Item	Modifier	UOM	Description	Line Total		
Labor	Equip.	Material	(Excluded if marked with an X)				
<b>01 - General Requirements</b>							
1	01 22 23 00-0980		DAY	80 To 65 Ton Lift, Truck Mounted Hydraulic Crane With Full-Time Operator	\$2,657.19		
				Quantity	Unit Price	Factor	Total
			Installation	1.00	2,363.64	1.1241	\$2,657.19

**Subtotal for 01 - General Requirements** **\$2,657.19**

### 22 - Plumbing

2	22 07 19 00-0037		LF	4" Diameter Pipe, 1-1/2" Thick, Fiberglass Insulation With All Service Jacket (ASJ)	\$195.05		
				Quantity	Unit Price	Factor	Total
			Installation	12.00	14.46	1.1241	\$195.05
3	22 07 19 00-0038		LF	6" Diameter Pipe, 1-1/2" Thick, Fiberglass Insulation With All Service Jacket (ASJ)	\$1,485.30		
				Quantity	Unit Price	Factor	Total
			Installation	66.00	16.70	1.1241	\$1,238.98
			Demolition	66.00	3.32	1.1241	\$246.31
4	22 07 19 00-0041		LF	12" Diameter Pipe, 1-1/2" Thick, Fiberglass Insulation With All Service Jacket (ASJ)	\$475.54		
				Quantity	Unit Price	Factor	Total
			Installation	16.00	28.44	1.1241	\$475.54
5	22 07 19 00-0598		LF	9-1/2" ID, 0.016" Aluminum Insulation Jacketing	\$1,004.54		
				Quantity	Unit Price	Factor	Total
			Installation	66.00	13.54	1.1241	\$1,004.54
6	22 07 19 00-0604		LF	12-1/2" ID, 0.016" Aluminum Insulation Jacketing	\$288.67		
				Quantity	Unit Price	Factor	Total
			Installation	16.00	16.05	1.1241	\$288.67

**Subtotal for 22 - Plumbing** **\$3,449.10**

### 23 - Heating, Ventilating, And Air-Conditioning (HVAC)

7	23 05 16 00-0017		EA	8" Flanged, 150 LB, Stainless Steel Bellows Type Expansion Joint	\$6,375.99		
				Quantity	Unit Price	Factor	Total
			Installation	4.00	1,201.25	1.1241	\$5,401.30
			Demolition	4.00	216.77	1.1241	\$974.68
8	23 05 19 00-0008		EA	9" Scale, Angle Stem, Liquid Filled Industrial Union Connection Type Thermometer	\$544.15		
				Quantity	Unit Price	Factor	Total
			Installation	4.00	121.02	1.1241	\$544.15

**Contractor's Price Proposal - Detail Continues..**

Sect.	Item	Modifier	UCM	Description	Line Total		
Labor	Equip.	Material	(Excluded If marked with an X)				
<b>23 - Heating, Ventilating, And Air-Conditioning (HVAC)</b>							
9	23 05 19 00-0029		EA	4-1/2" Diameter Dial, Aluminum Case, 0 To 60 PSI Or 0 To 100 PSI, Pressure Gauge	\$823.83		
				Quantity	Unit Price	Factor	Total
			Installation	4.00	x 183.22	x 1.1241	= \$823.83
10	23 05 19 00-0051		EA	1/4" Male Pipe Thread, Brass Gauge Cock	\$87.72		
				Quantity	Unit Price	Factor	Total
			Installation	4.00	x 19.51	x 1.1241	= \$87.72
11	23 05 19 00-0053		EA	1/4" x 3" Long Black Steel Nipple	\$19.98		
				Quantity	Unit Price	Factor	Total
			Installation	4.00	x 4.44	x 1.1241	= \$19.96
12	23 05 23 00-0071		EA	6" Diameter, Class 125 Outside Stem And Yoke, Flanged, Cast Iron Body, Bronze Trim Gate Valve	\$4,649.41		
				Quantity	Unit Price	Factor	Total
			Installation	4.00	x 1,034.03	x 1.1241	= \$4,649.41
13	23 05 23 00-0123		EA	1/2" Threaded Or Sweated, 125 LB, Regular Port, Carbon Steel Trim, Brass Body, Ball Valve	\$151.82		
				Quantity	Unit Price	Factor	Total
			Installation	4.00	x 33.72	x 1.1241	= \$151.82
14	23 05 23 00-0124		EA	3/4" Threaded Or Sweated, 125 LB, Regular Port, Carbon Steel Trim, Brass Body, Ball Valve	\$318.68		
				Quantity	Unit Price	Factor	Total
			Installation	6.00	x 47.25	x 1.1241	= \$318.68
15	23 05 23 00-1039		EA	6" Flanged Flow Control Valve, Iron And Bronze, Water Balancing Valve With Pressures Up To 300 PSIG	\$4,293.77		
				Quantity	Unit Price	Factor	Total
			Installation	2.00	x 1,909.87	x 1.1241	= \$4,293.77
16	23 05 29 00-0952		EA	10" Outside Diameter, 16 Gauge Insulation Protection Shield, 18" Length (Cooper B-Line B3151)	\$283.81		
				Quantity	Unit Price	Factor	Total
			Installation	8.00	x 31.56	x 1.1241	= \$283.81
17	23 05 48 13-0021		EA	550 To 1,920 LB Rubber In Shear Vibration Isolation With 0.48" Deflection	\$3,072.30		
				Quantity	Unit Price	Factor	Total
			Installation	8.00	x 341.64	x 1.1241	= \$3,072.30
18	23 05 93 00-0031		EA	Water Balance, Chiller, Air Cooled	\$913.04		
				Quantity	Unit Price	Factor	Total
			Installation	2.00	x 406.12	x 1.1241	= \$913.04
19	23 05 93 00-0085		EA	Up To 100', >4" To 10" Piping, Hydrostatic Testing	\$1,882.58		
				Quantity	Unit Price	Factor	Total
			Installation	2.00	x 837.37	x 1.1241	= \$1,882.58
20	23 09 23 53-0050		PNT	EMCS Field Checkout And Startup Priced per point.	\$1,244.38		
				Quantity	Unit Price	Factor	Total
			Installation	12.00	x 92.25	x 1.1241	= \$1,244.38

Contractor's Price Proposal - Detail Continues..

Sect	Item	Modifier	UOM	Description	Line Total	
Labor	Equip.	Material	(Excluded if marked with an X)			
<b>23 - Heating, Ventilating, And Air-Conditioning (HVAC)</b>						
21	23 08 23 53-0089	EA		1 Ethernet, 1 MS/TP, BACtalk Control Module (Alerton 715000100)	\$10,182.82	
			Quantity	Unit Price	Factor	Total
			2.00	4,529.32	x 1.1241	\$10,182.82
			Installation			
			Chiller BACnet Cards from Factory			
22	23 08 23 53-0534	EA		IFS-WPS Flow Switch (Potter 8000D17)	\$718.79	
			Quantity	Unit Price	Factor	Total
			2.00	319.72	x 1.1241	\$718.79
			Installation			
23	23 08 23 53-0985	EA		Energy Meter H8183 Series, With BACnet Output (Veris H8186-CB-BAC)	\$7,787.90	
			Quantity	Unit Price	Factor	Total
			2.00	3,464.06	x 1.1241	\$7,787.90
			Installation			
24	23 21 13 23-0217	EA		1/2" x 4" Long, Schedule 40 Black Steel Nipple	\$103.89	
			Quantity	Unit Price	Factor	Total
			8.00	11.53	x 1.1241	\$103.89
			Installation			
25	23 21 13 23-0218	EA		3/4" x 4" Long, Schedule 40 Black Steel Nipple	\$53.46	
			Quantity	Unit Price	Factor	Total
			4.00	11.89	x 1.1241	\$53.46
			Installation			
26	23 21 13 23-0403	LF		6" Schedule 40, Welded Plain End Black Steel Pipe	\$2,652.86	
			Quantity	Unit Price	Factor	Total
			40.00	45.09	x 1.1241	\$2,027.43
			Installation			
			40.00	13.91	x 1.1241	\$625.45
			Demolition			
27	23 21 13 23-0421	EA		6" Standard Weight, Welded Plain End Black Steel 90 Degree Elbow	\$3,826.71	
			Quantity	Unit Price	Factor	Total
			6.00	537.72	x 1.1241	\$3,826.71
			Installation			
28	23 21 13 23-0450	EA		6" Standard Weight, Welded Plain End Black Steel 45 Degree Elbow	\$1,122.55	
			Quantity	Unit Price	Factor	Total
			2.00	499.31	x 1.1241	\$1,122.55
			Installation			
29	23 21 13 23-0488	EA		6" Standard Weight, Welded Plain End Black Steel Tee	\$1,777.27	
			Quantity	Unit Price	Factor	Total
			2.00	780.53	x 1.1241	\$1,777.27
			Installation			
30	23 21 13 23-0514	EA		6" x 4" Standard Weight, Welded Plain End, Black Steel Eccentric Reducer	\$2,404.85	
			Quantity	Unit Price	Factor	Total
			4.00	534.84	x 1.1241	\$2,404.85
			Installation			
31	23 21 13 23-0622	EA		6", 150 LB, Welded Plain End Black Steel Neck Flange	\$6,080.59	
			Quantity	Unit Price	Factor	Total
			19.00	264.70	x 1.1241	\$6,080.59
			Installation			
32	23 21 13 23-0660	EA		1/2", 3,000 LB, Forge Steel Thread-O-Let	\$232.01	
			Quantity	Unit Price	Factor	Total
			4.00	51.60	x 1.1241	\$232.01
			Installation			
33	23 21 13 23-0661	EA		3/4", 3,000 LB, Forge Steel Thread-O-Let	\$371.89	
			Quantity	Unit Price	Factor	Total
			6.00	55.11	x 1.1241	\$371.89
			Installation			



Contractor's Price Proposal - Detail Continues..

Sect.	Item	Modifier	UOM	Description	Line Total		
Labor	Equip.	Material	(Excluded If marked with an X)				
<b>23 - Heating, Ventilating, And Air-Conditioning (HVAC)</b>							
34	23 21 13 23-0662		EA	1", 3,000 LB, Forge Steel Thread-O-Let	\$132.73		
				Quantity	Unit Price	Factor	Total
			Installation	2.00	x 59.04	x 1.1241	= \$132.73
35	23 21 13 23-0664		EA	6" Pipe Diameter, Class 300 Steel Flange, Bolt And Gasket Set includes rubber gasket, and twelve (12) 3/4" diameter bolts with washers and nut.	\$2,285.51		
				Quantity	Unit Price	Factor	Total
			Installation	19.00	x 107.01	x 1.1241	= \$2,285.51
36	23 21 13 23-1432		LF	4" Black Schedule 40 Grooved Pipe	\$621.31		
				Quantity	Unit Price	Factor	Total
			Installation	12.00	x 46.06	x 1.1241	= \$621.31
37	23 21 13 23-1854		EA	6" x 4" Eccentric Reducer, Grooved	\$2,110.57		
				Quantity	Unit Price	Factor	Total
			Installation	4.00	x 469.39	x 1.1241	= \$2,110.57
38	23 64 28 13-0012		EA	180 Ton Packaged Air Cooled Rotary-Screw Water Chiller	\$359,451.10		
				Quantity	Unit Price	Factor	Total
			Installation	2.00	x 155,913.20	x 1.1241	= \$350,524.06
			Demolition	2.00	x 3,970.75	x 1.1241	= \$8,927.04
39	23 84 28 13-0012	0363	MOD	For 208/230 Voltage Motor Rating, Add	\$13,485.33		
				Quantity	Unit Price	Factor	Total
			Installation	2.00	x 5,996.26	x 1.1241	= \$13,485.33
<b>Subtotal for 23 - Heating, Ventilating, And Air-Conditioning (HVAC)</b>					<b>\$439,863.00</b>		
<b>26 - Electrical</b>							
40	26 05 13 18-0013		MLF	500 MCM, XLP, 5 KV, Shielded, Single Copper Conductor Cable, Installed In Duct	\$1,801.45		
				Quantity	Unit Price	Factor	Total
			Installation	0.12	x 13,354.78	x 1.1241	= \$1,801.45
41	26 05 33 13-2291		LF	4" Flexible Liquid Tight Metallic Conduit	\$549.08		
				Quantity	Unit Price	Factor	Total
			Installation	14.00	x 31.30	x 1.1241	= \$492.58
			Demolition	14.00	x 3.59	x 1.1241	= \$56.50
42	26 05 33 13-2302		EA	4" Straight Liquid Tight Connector	\$629.32		
				Quantity	Unit Price	Factor	Total
			Installation	4.00	x 164.44	x 1.1241	= \$629.32
43	26 05 33 13-2313		EA	4" 90 Degree Angle Liquid Tight Connector	\$602.90		
				Quantity	Unit Price	Factor	Total
			Installation	2.00	x 269.17	x 1.1241	= \$602.90
44	26 28 16 16-0053		EA	600 Amp, 600 Volt Class, 3 Phase, 4 Wire, 3 Blades And Fuseholders, Heavy Duty Fusible, NEMA 1 Enclosure, Neutral Kit, Safety Switch	\$15,977.69		
				Quantity	Unit Price	Factor	Total
			Installation	2.00	x 6,458.08	x 1.1241	= \$14,519.06
			Demolition	2.00	x 648.80	x 1.1241	= \$1,458.63

Contractor's Price Proposal - Detail Continues..

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Sect.	Item	Modifier	UOM	Description	Line Total
Labor	Equip.	Material	(Excluded if marked with an X)		
<b>Subtotal for 26 - Electrical</b>					<b>\$19,760.44</b>
<b>Proposal Total</b>					<b>\$465,729.73</b>

This total represents the correct total for the proposal. Any discrepancy between line totals, sub-totals and the proposal total is due to rounding.





PETRA CHILLER SELECTION 2.1

06/08/2021

Project name : Masic PGCP5

Entered By : USA Sales

Model Ref. : option 1 (PSC4-180)

Qty : 1

**Input Data :**

Refrigerant : R410A  
 Power Supply : 208/3ph/60Hz  
 Ambient [ °F ] : 95.00  
 Cooler Water In [ °F ] : 55.00  
 Cooler Water Out [ °F ] : 45.00  
 Fouling Factor [ ft<sup>2</sup> °F h/Btu ] : 0.000100  
 Glycol : Water  
 Elevation [ ft ] : 0

**Output Data :**

Cooler W.P.D [ Psi ] : 6.25  
 Water Flow Rate [ GPM ] : 446.68  
 Minimum Loop Volume [ Gallon ] : 2233.40  
 Minimum Flow Rate [ GPM ] : 300.90  
 Calculated capacity [ Btu / hr ] : 2256720.00  
 Calculated capacity T.R : 188.06  
 Calculated velocity [ fpm ] : 668.12  
**Operating Conditions :**  
 Compressor Power Input [ kW ] : 207.83  
 EER : 10.10  
 COP : 2.96  
 IPLV EER : 14.7636  
 IPLV kW/Ton : 0.81

**AHRI Conditions :**

	@ 100 %	@ 75 %	@ 50 %	@ 25 %	@ 10 %
EER	10.097	12.96	16.04	17.52	18.12
kW/Ton	1.188	0.926	0.748	0.685	0.662

**Sound Data ( dba ) :**

**Compressor Option**

Frequency [ Hz ]	63	125	250	500	1k	2k	4k	8k	Total (dba)
Sound Power [ SWL ]	102	96	90	89	95	95	88	76	99
Sound Pressure [SPL] @ 30 ft	73	67	61	60	66	66	59	47	70

**Condenser Data :**

**>> Coil :**

Material : Micro Channel  
 No. of condensers : 8  
 Total Air Flow Rate [ CFM ] : 160794

**>> Fan :**

Condenser Fans : Propeller (Axial)  
 Type of Drive : Direct driven  
 No. of fans : 8

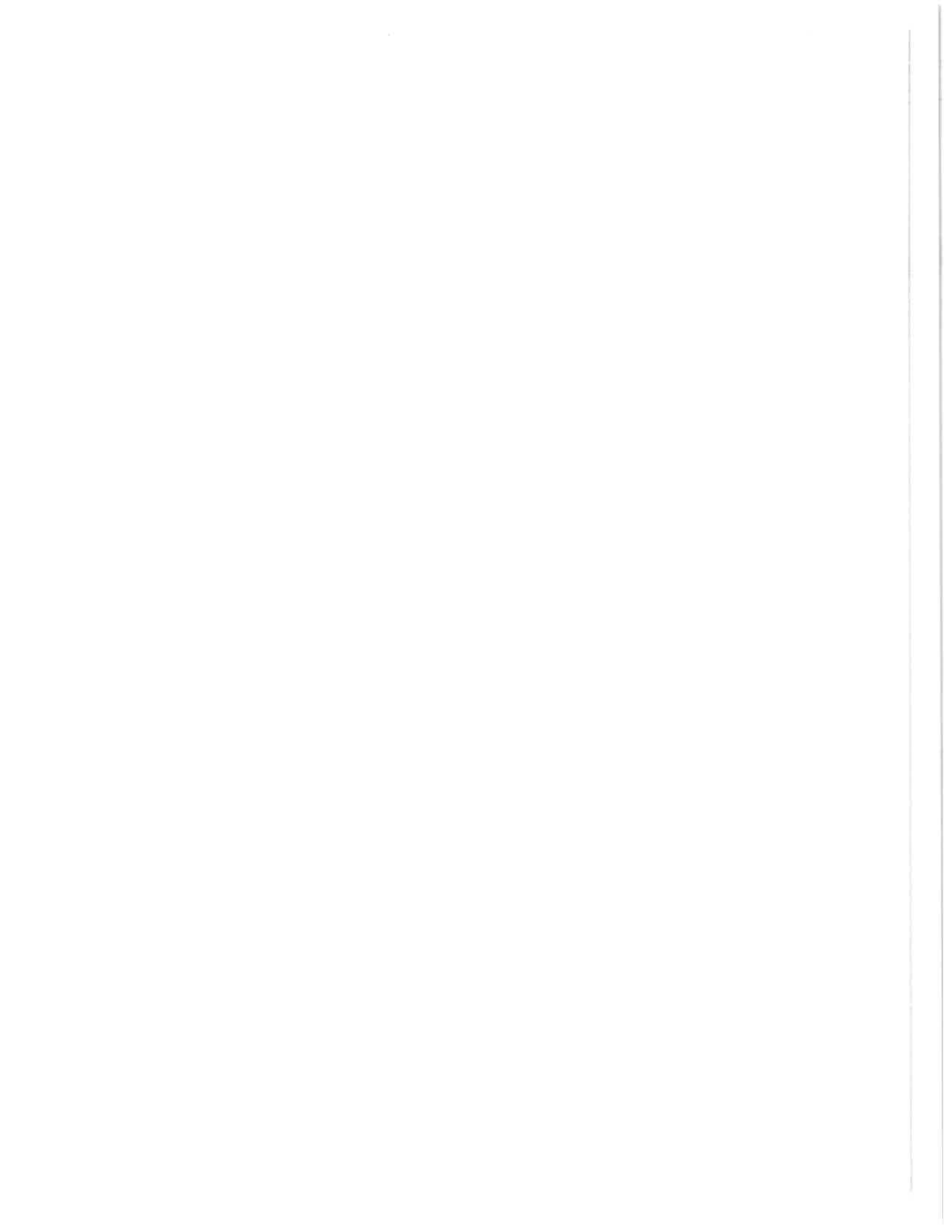
**Compressor :**

No. : 8

**Electrical Data**

**Compressor**

No. : 8





PETRA CHILLER SELECTION 2,1

06/08/2021

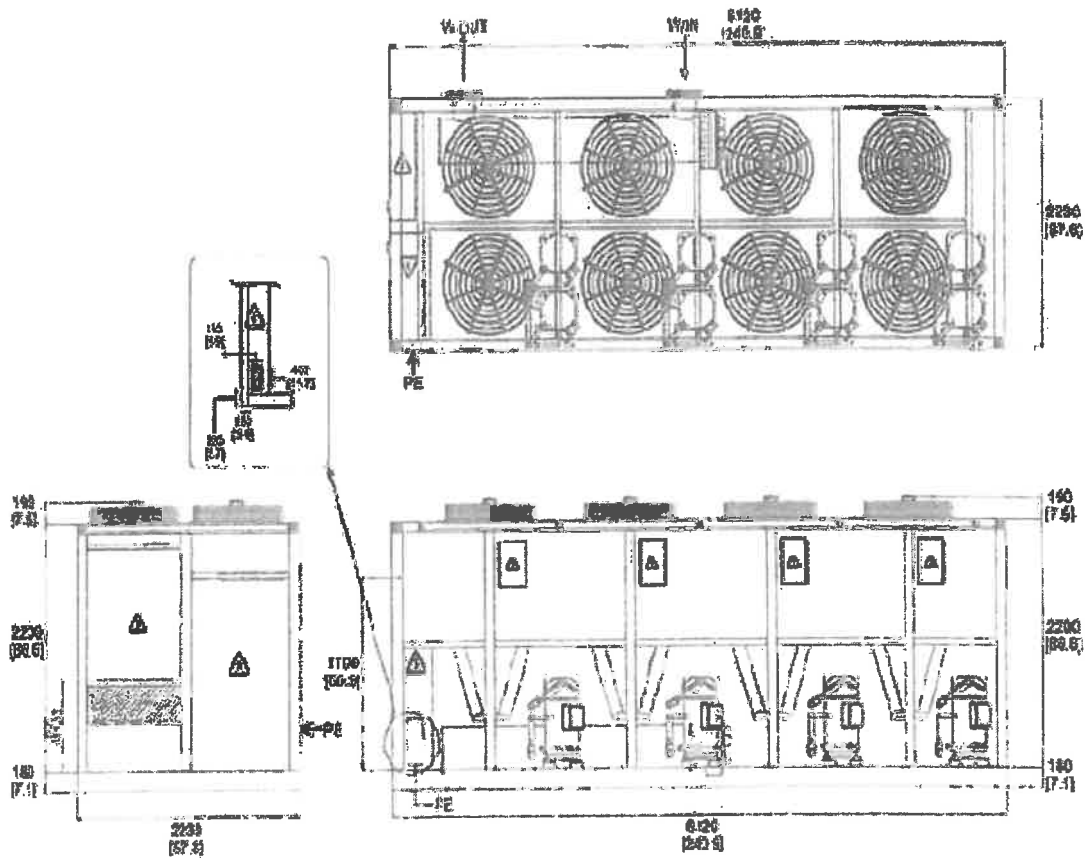
Project name : Massie PGCP5

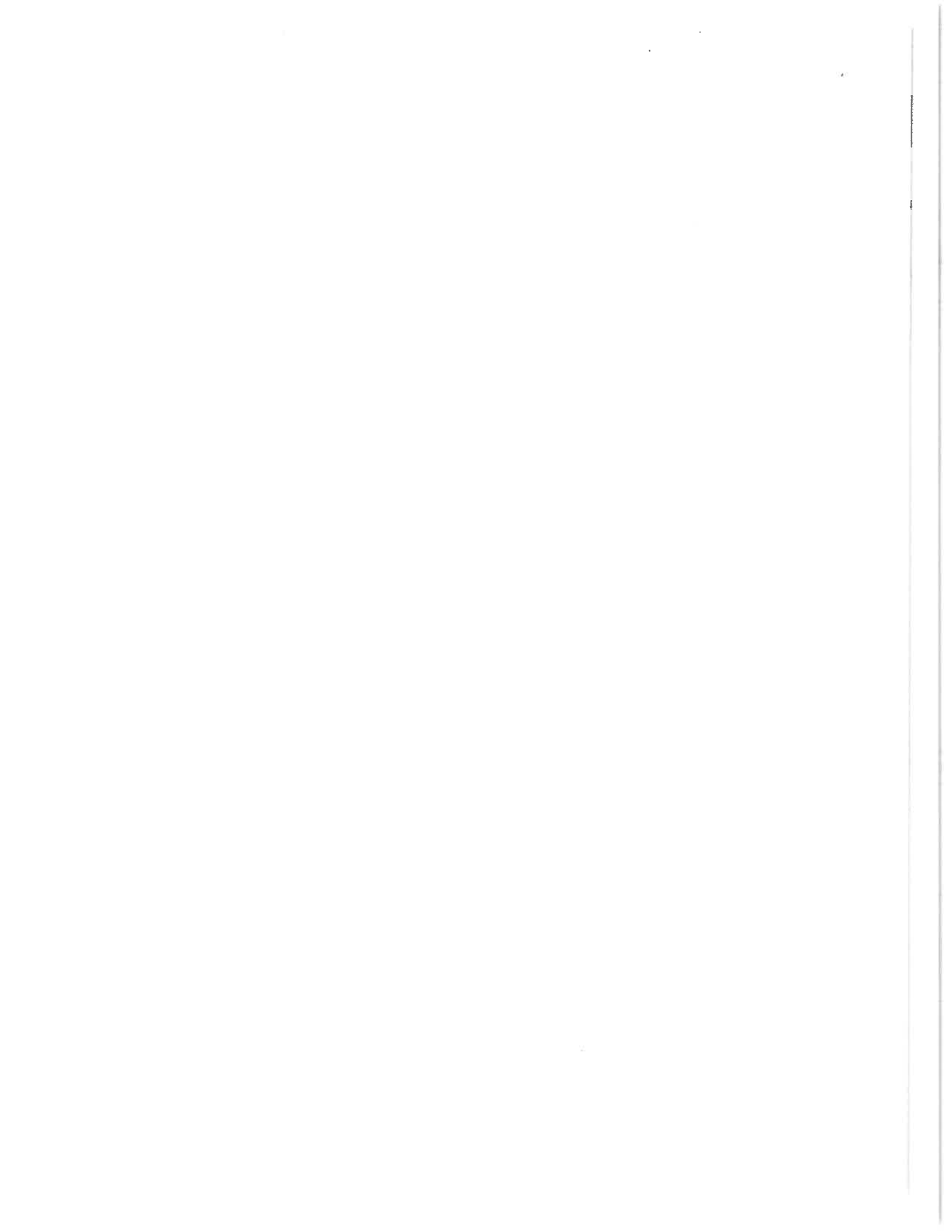
Entered By : USA Sales

Condenser Fan Motor

No.	:	8
KW	:	1.96
FLA	:	6.6
<hr/>		
MCA	:	836.55
MOP	:	800
MDS	:	1000

Model Layout :







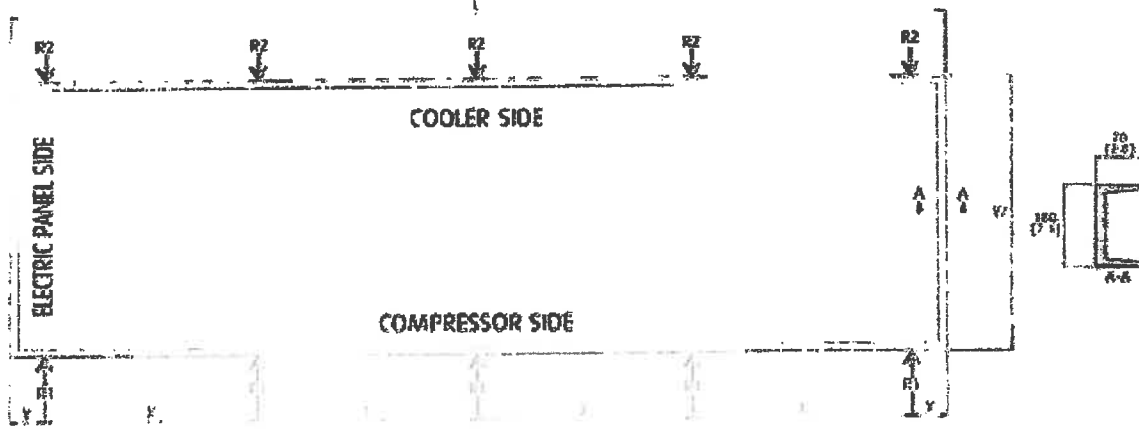
PETRA CHILLER SELECTION 2.1

06/08/2021

Project name : Massie PGCPs

Entered By : USA Sales

**Model Load Distribution :**



All dimensions in mm (inch)

	X	Y		
	mm	(inch)	mm	(inch)
1500	574	1.010	1250	15.219