



ARCHITECTURAL ICON 8

Hot Water Heated Air Curtain

Data Sheet

Recommended for Mounting Heights to 8' (environmental separation) and 7' (insect control)

STANDARD CONSTRUCTION

- 8 1/4" high x 16" deep
- 1/5 hp motor(s) - ten speeds
- Factory installed Intelliswitch™ digital controller
- Clear satin anodized aluminum exterior
- Wall or Top Mounting
- High efficiency, low noise, articulating, three vane, Pro-V Nozzle
- Factory installed coil
- Filter (washable)

OPTIONS

- 1/5 hp EC motor(s) - ten speeds
- Custom Color or Stainless
- Rear cover for top mounting to conceal fasteners
- Berner AIR™ (smart controller & app, includes BACnet)

Energy Codes ASHRAE 90.1-2019, IECC 2018, and ASHRAE 189.1 vestibule exception validated by AMCA certification.

Refer to Velocity Projection Chart below for information.



Berner International certifies that the air curtains shown here-in are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings Program. Rated data shown is for base (hot water heated) units. The AMCA Certified Ratings Seal applies to airflow rate, average outlet velocity, outlet velocity uniformity, velocity projection and power rating at free delivery only.

2 Year Limited Warranty



indoor use



| MODEL | Nozzle Width (in) | Max Vel. at Nozzle (fpm) | Avg. Outlet Vel. (fpm) | Air Volume (cfm) | Outlet Vel. Uniformity | Power Rating (kW) | Motor(s) @ hp | Coil Output (MBH) | Entering / Leaving Water Temp. (°F) | Water Flow (GPM) | Fluid Pressure Drop (FT. WG.) | Air Temp. Rise (°F) | Net Wt. (lbs) |
|--------------|-------------------|--------------------------|------------------------|------------------|------------------------|-------------------|---------------|-------------------|-------------------------------------|------------------|-------------------------------|---------------------|---------------|
| AI08-E-1036W | 36.00 | 2,054 | 1,545 | 869 | 84% | 0.19 | 1 @ 1/5 | 27.1 | 180° / 166° | 4.0 | 1.3 | 29° | 68 |
| AI08-E-1042W | 42.00 | 1,985 | 1,547 | 1,015 | 82% | 0.20 | 1 @ 1/5 | 32.9 | 180° / 166° | 5.0 | 2.1 | 30° | 75 |
| AI08-E-1048W | 48.00 | 2,013 | 1,585 | 1,189 | 80% | 0.23 | 1 @ 1/5 | 37.9 | 180° / 164° | 5.0 | 2.1 | 29° | 83 |
| AI08-E-1060W | 59.00 | 2,040 | 1,552 | 1,431 | 80% | 0.26 | 1 @ 1/5 | 46.0 | 180° / 161° | 5.0 | 2.2 | 29° | 99 |
| AI08-E-1072W | 72.00 | 1,928 | 1,394 | 1,568 | 83% | 0.28 | 1 @ 1/5 | 55.8 | 180° / 164° | 7.0 | 4.4 | 32° | 117 |
| AI08-E-2084W | 84.00 | 1,985 | 1,547 | 2,030 | 82% | 0.41 | 2 @ 1/5 | 67.3 | 180° / 160° | 7.0 | 4.6 | 30° | 149 |
| AI08-E-2096W | 96.00 | 2,013 | 1,585 | 2,378 | 80% | 0.46 | 2 @ 1/5 | 80.4 | 180° / 162° | 9.0 | 7.8 | 31° | 164 |
| AI08-E-2108W | 108.00 | 2,040 | 1,553 | 2,620 | 80% | 0.49 | 2 @ 1/5 | 88.6 | 180° / 160° | 9.0 | 8.0 | 31° | 180 |
| AI08-E-2120W | 118.00 | 2,040 | 1,552 | 2,862 | 80% | 0.53 | 2 @ 1/5 | 97.4 | 180° / 160° | 10.0 | 10.1 | 31° | 196 |

See sheets EP-286E-AC & EP-286E-EC for amp draws/total load requirements.

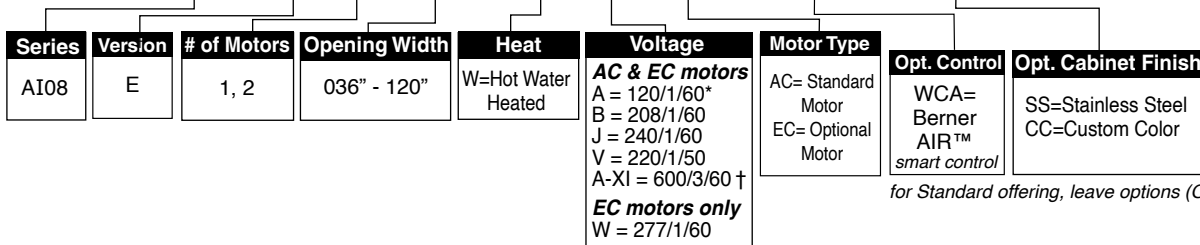
600/3/60 power supply includes transformer housing, See drawing AI08-E-WTR-600

NOTES:

1. Standard connection same end supply/return.
2. Coil should be field supplied with a solenoid/control valve that energizes only when air curtain is energized. Consideration must be taken for freeze protection when necessary.
3. Coil performance based on 65°F entering air temperature.
4. Maximum leaving air temperature shall not exceed 120F.
5. Consult factory for alternate entering air & water temperatures or GPM's.
6. Operation of standard motor (AC) at 50Hz will generate a 17% reduction in performance; no reduction for optional EC motors.

MODEL NUMBER CONFIGURATION

AI08-E-1 036 W A-AC-WCA -SS



for Standard offering, leave options (Opt.) blank

*Suitable for 50 Hz
 † Add 5" for transformer housing

| VELOCITY PROJECTION: Model AI08-E-1036W | | | |
|---|-----|-----|-----|
| Distance from Nozzle (in) | 40 | 80 | 120 |
| Core Velocity (fpm) | 859 | 588 | 547 |
| Uniformity (%) | 89% | 87% | 91% |

ASHRAE 90.1-2019 vestibule exception requires, "a jet velocity of not less than 6.6 feet per second (400 fpm; 2.0 m/s) at 6.0 in (15 cm) above the floor."

Sound level measured 10' (3m) from the unit in free field:

1 motor: Min./Max. Speed: 50/55 dBA

2 motors: Min./Max. Speed: 53/58 dBA

Sound data is not AMCA certified.

Berner reserves the right to alter specifications without prior notice.



ARCHITECTURAL ICON 8 - AC MOTORS

Hot Water Heated Air Curtain Electrical Performance Sheet

| | | 120/1/60 (voltage code A) MOTOR AMP DRAW = 3.4 each | | 208/1/60 (voltage code B) MOTOR AMP DRAW = 1.7 each | | | 240/1/60 (voltage code J) or 220/1/50 (voltage code V) MOTOR AMP DRAW = 1.7 each | | |
|--|--------|--|----------------------------|--|------------------|----------------------------|--|------------------|----------------------------|
| MODEL | # CKTS | AMPS PER CIRCUIT | BREAKER RATING PER CIRCUIT | # CKTS | AMPS PER CIRCUIT | BREAKER RATING PER CIRCUIT | # CKTS | AMPS PER CIRCUIT | BREAKER RATING PER CIRCUIT |
| AI08-E-1036W AI08-E-1042W AI08-E-1048W AI08-E-1060W AI08-E-1072W | 1 | 3.4 | 15 | 1 | 1.7 | 15 | 1 | 1.7 | 15 |
| AI08-E-2084W AI08-E-2096W AI08-E-2108W AI08-E-2120W | 1 | 6.8 | 15 | 1 | 3.4 | 15 | 1 | 3.4 | 15 |

| | | 600/3/60 (voltage code A-XI) XFMR 600/120 0.5kVA per MTR @0.8 each MOTOR AMP DRAW = 3.4 each @ 120V | | * Consult Factory 277/1/60 (voltage code W) MOTOR AMP DRAW = ?? each | | |
|--|--------|---|----------------------------|--|------------------|----------------------------|
| MODEL | # CKTS | AMPS PER CIRCUIT | BREAKER RATING PER CIRCUIT | # CKTS | AMPS PER CIRCUIT | BREAKER RATING PER CIRCUIT |
| AI08-E-1036W AI08-E-1042W AI08-E-1048W AI08-E-1060W AI08-E-1072W | 1 | 0.8 | 15 | * | * | * |
| AI08-E-2084W AI08-E-2096W AI08-E-2108W AI08-E-2120W | 1 | 1.6 | 15 | * | * | * |

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www.berner.com **Berner International** 800.245.4455
111 Progress Ave. / New Castle / PA / 16101 / USA

EP-286E-AC
June, 2023



ARCHITECTURAL ICON 8 - EC MOTORS

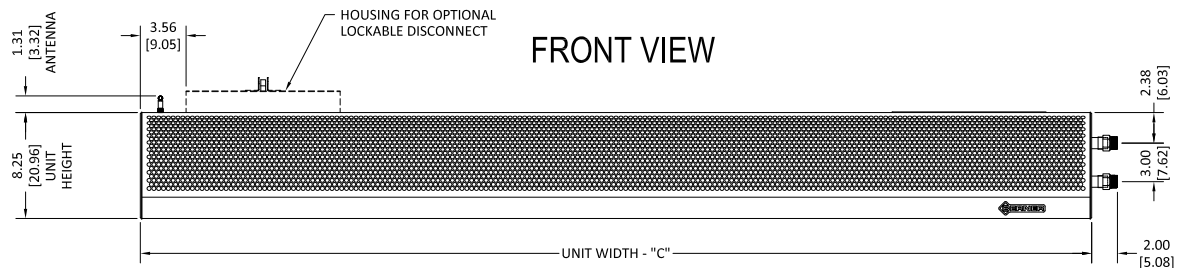
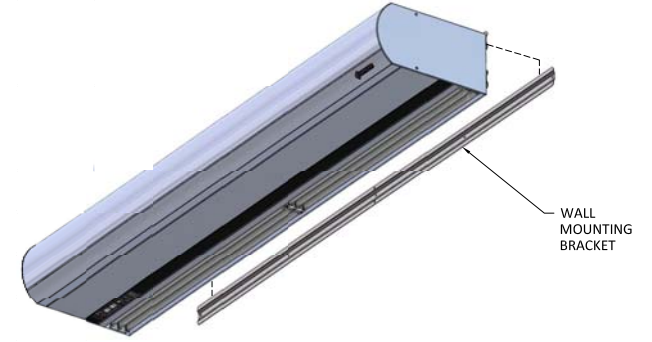
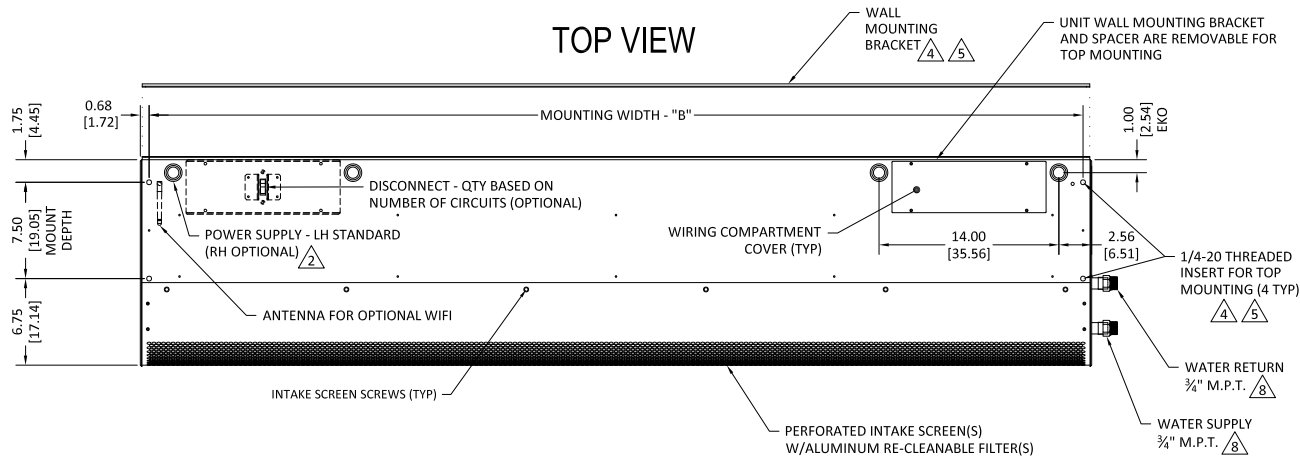
Hot Water Heated Air Curtain Electrical Performance Sheet

| | | 120/1/60 (voltage code A) MOTOR AMP DRAW = 4.4 each | | 208/1/60 (voltage code B) MOTOR AMP DRAW = 2.5 each | | | 240/1/60 (voltage code J) or 220/1/50 (voltage code V) MOTOR AMP DRAW = 2.5 each | | |
|--|--------|--|----------------------------|--|------------------|----------------------------|--|------------------|----------------------------|
| MODEL | # CKTS | AMPS PER CIRCUIT | BREAKER RATING PER CIRCUIT | # CKTS | AMPS PER CIRCUIT | BREAKER RATING PER CIRCUIT | # CKTS | AMPS PER CIRCUIT | BREAKER RATING PER CIRCUIT |
| AI08-E-1036W AI08-E-1042W AI08-E-1048W AI08-E-1060W AI08-E-1072W | 1 | 4.4 | 15 | 1 | 2.5 | 15 | 1 | 2.5 | 15 |
| AI08-E-2084W AI08-E-2096W AI08-E-2108W AI08-E-2120W | 1 | 8.8 | 15 | 1 | 5.0 | 15 | 1 | 5.0 | 15 |

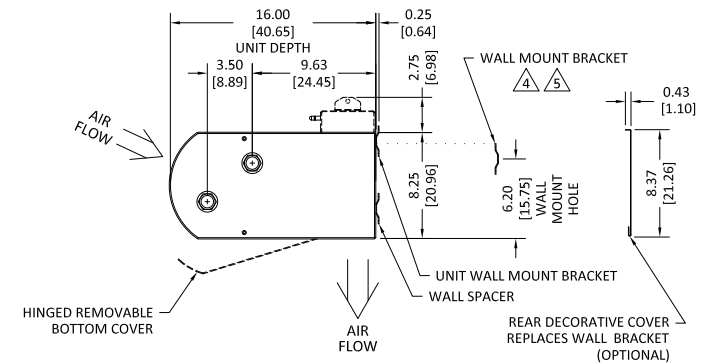
| | | 600/3/60 (voltage code A-XI) XFMR 600/120 0.5kVA per MTR @0.8 each MOTOR AMP DRAW = 4.4 each @ 120V | | 277/1/60 (voltage code W) MOTOR AMP DRAW = 2.2 each | | |
|--|--------|---|----------------------------|--|------------------|----------------------------|
| MODEL | # CKTS | AMPS PER CIRCUIT | BREAKER RATING PER CIRCUIT | # CKTS | AMPS PER CIRCUIT | BREAKER RATING PER CIRCUIT |
| AI08-E-1036W AI08-E-1042W AI08-E-1048W AI08-E-1060W AI08-E-1072W | 1 | 0.8 | 15 | 1 | 2.2 | 15 |
| AI08-E-2084W AI08-E-2096W AI08-E-2108W AI08-E-2120W | 1 | 1.7 | 15 | 1 | 4.4 | 15 |

Berner reserves the right to alter specifications without prior notice.

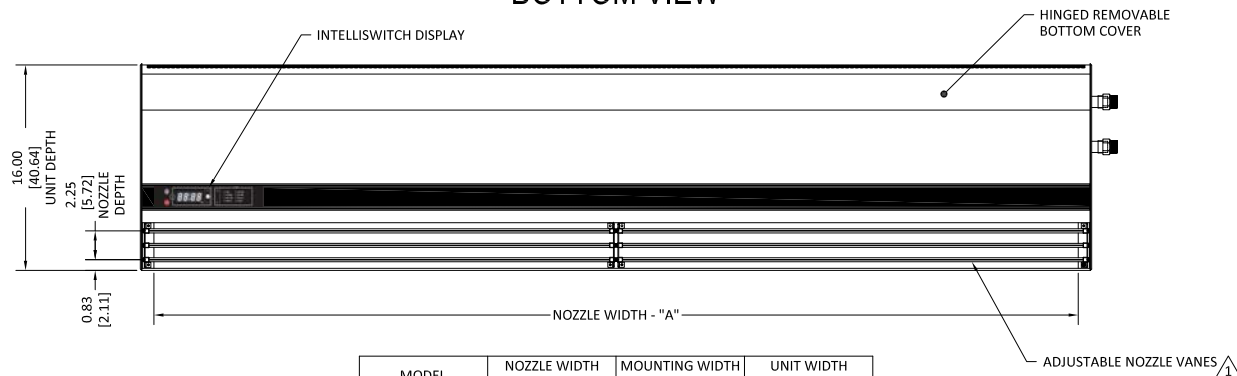
AI08-E WATER HEATED SYSTEM: 120 - 240V



END VIEW



BOTTOM VIEW



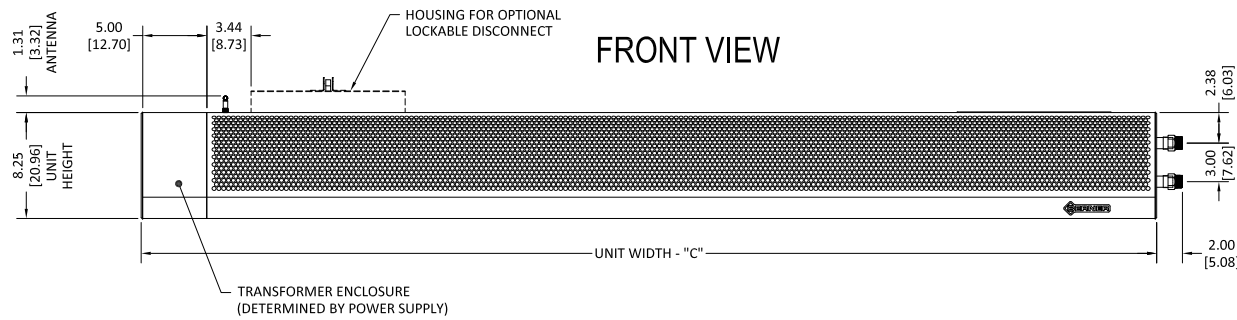
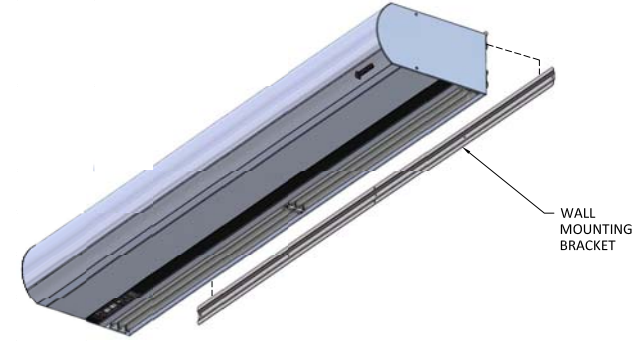
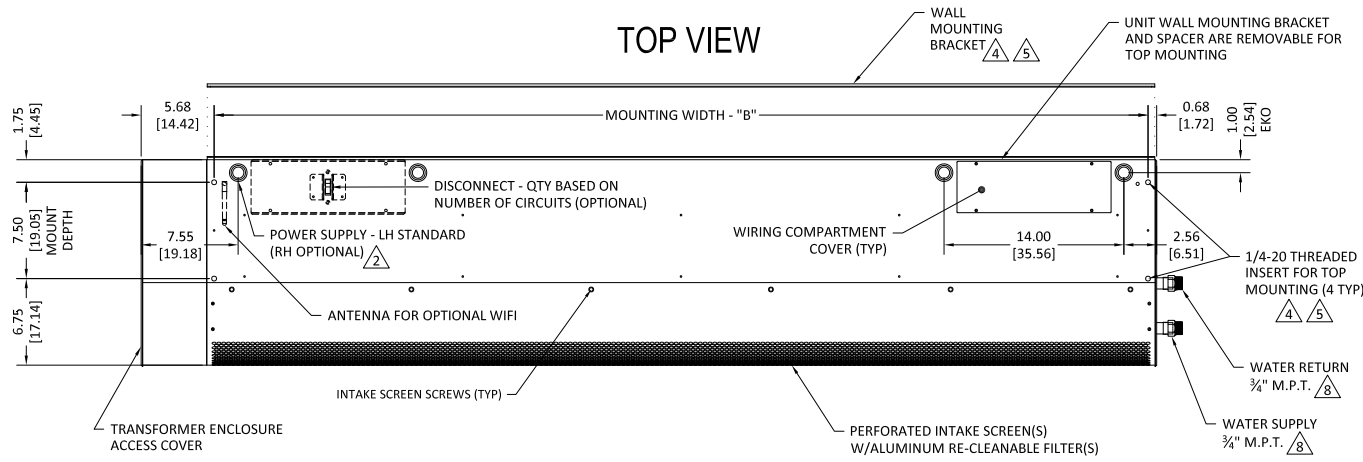
| MODEL | NOZZLE WIDTH "A" | MOUNTING WIDTH "B" | UNIT WIDTH "C" |
|--------------|------------------|--------------------|-----------------|
| AI08-E-1036W | 36.00 [91.44] | 36.75 [93.35] | 38.13 [96.84] |
| AI08-E-1042W | 42.00 [106.68] | 42.75 [108.59] | 44.13 [112.08] |
| AI08-E-1048W | 48.00 [121.92] | 48.75 [123.83] | 50.13 [127.32] |
| AI08-E-1060W | 59.00 [149.86] | 59.75 [151.76] | 61.13 [155.26] |
| AI08-E-1072W | 72.00 [182.88] | 72.75 [184.79] | 74.13 [188.28] |
| AI08-E-2084W | 84.00 [213.36] | 84.75 [215.27] | 86.13 [218.76] |
| AI08-E-2096W | 96.00 [243.84] | 96.75 [245.75] | 98.13 [249.24] |
| AI08-E-2108W | 108.00 [274.32] | 108.75 [276.23] | 110.13 [279.72] |
| AI08-E-2120W | 118.00 [299.72] | 118.75 [301.63] | 120.13 [305.12] |

NOTES:

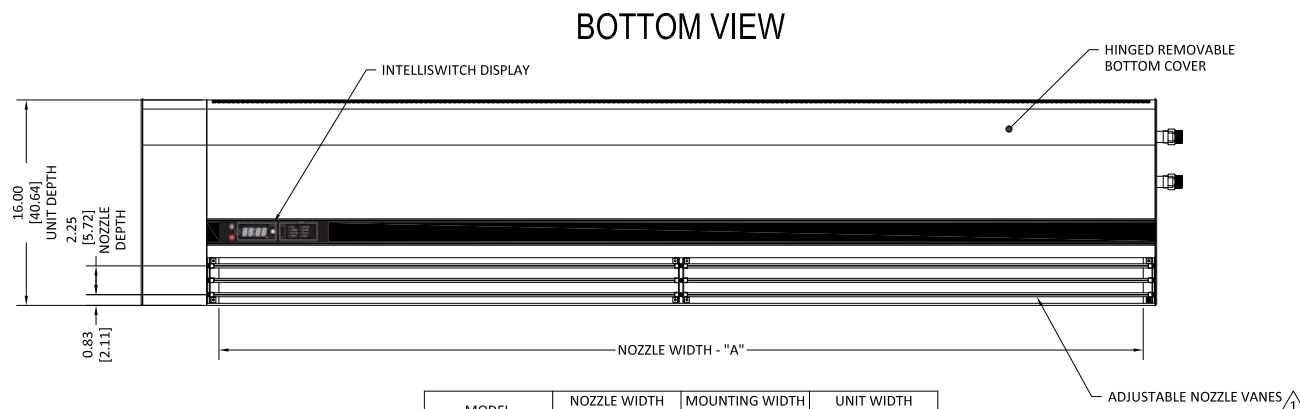
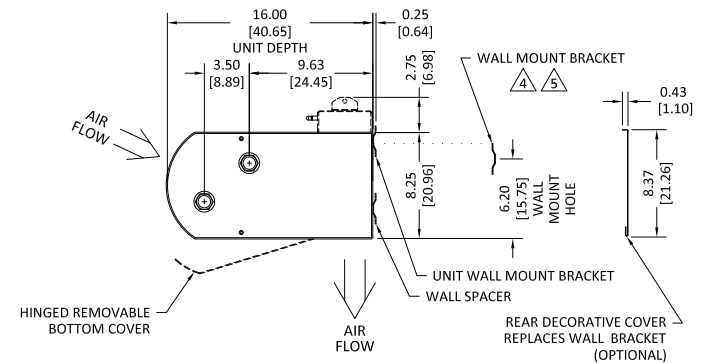
- 1 AIR CURTAIN MUST BE INSTALLED SO AIR STREAM IS NOT OBSTRUCTED WHEN DEFLECTED 20° TO EITHER SIDE OF Q.
- 2 ELECTRICAL CONNECTIONS TO BE FLEXIBLE.
- 3 FIELD VERIFY DIMENSIONS.
- 4 ANCHORS TO SUPPORTING STRUCTURE BY OTHERS.
- 5 ADEQUACY OF SUPPORTING STRUCTURE IS TO BE VERIFIED BY A PROFESSIONAL STRUCTURAL ENGINEER.
- 6 THE LAST CHARACTER IN THE MODEL NUMBER - "W" DESIGNATES WATER HEATED UNIT.
- 7 DIMENSIONS IN INCHES [CENTIMETERS].
- 8 COIL CONNECTIONS RH STANDARD (AS SHOWN), OPTIONAL LH.

| | | | |
|---|----------------|--------|---|
| PROJECT | | REV | A |
| LOCATION | | | |
| ARCHITECT | | | |
| ENGINEER | | | |
| DWG. NO. | AI08-E-WTR-120 | TITLE: | BERNER MODEL AI08-E AIR CURTAIN 120 - 277V WATER HEATED SYSTEM |
| DATE | 10JUL2023 | | |
| BY | D.Johnson | | |
| REPLACES | 23FEB2023 | | |
| BY | D.Johnson | | |
| BERNER INTERNATIONAL CORP. NEW CASTLE, PA. | | | |

A108-E WATER HEATED SYSTEM: 277 - 600V



END VIEW



NOTES:

- 1 AIR CURTAIN MUST BE INSTALLED SO AIR STREAM IS NOT OBSTRUCTED WHEN DEFLECTED 20° TO EITHER SIDE OF Q.
- 2 ELECTRICAL CONNECTIONS TO BE FLEXIBLE.
- 3 FIELD VERIFY DIMENSIONS.
- 4 ANCHORS TO SUPPORTING STRUCTURE BY OTHERS.
- 5 ADEQUACY OF SUPPORTING STRUCTURE IS TO BE VERIFIED BY A PROFESSIONAL STRUCTURAL ENGINEER.
- 6 THE LAST CHARACTER IN THE MODEL NUMBER - "W" DESIGNATES WATER HEATED UNIT.
- 7 DIMENSIONS IN INCHES [CENTIMETERS].
- 8 COIL CONNECTIONS RH STANDARD (AS SHOWN), OPTIONAL LH.

| MODEL | NOZZLE WIDTH "A" | MOUNTING WIDTH "B" | UNIT WIDTH "C" |
|--------------|------------------|--------------------|-----------------|
| A108-E-1036W | 36.00 [91.44] | 36.75 [93.35] | 43.125 [109.54] |
| A108-E-1042W | 42.00 [106.68] | 42.75 [108.59] | 49.125 [124.78] |
| A108-E-1048W | 48.00 [121.92] | 48.75 [123.83] | 55.13 [140.02] |
| A108-E-1060W | 59.00 [149.86] | 59.75 [151.76] | 66.13 [167.96] |
| A108-E-1072W | 72.00 [182.88] | 72.75 [184.79] | 79.13 [200.98] |
| A108-E-2084W | 84.00 [213.36] | 84.75 [215.27] | 91.13 [231.46] |
| A108-E-2096W | 96.00 [243.84] | 96.75 [245.75] | 103.13 [261.94] |
| A108-E-2108W | 108.00 [274.32] | 108.75 [276.23] | 115.13 [292.42] |
| A108-E-2120W | 118.00 [299.72] | 118.75 [301.63] | 125.13 [317.82] |

| | | | |
|-----------|----------------|--------|---|
| PROJECT | | REV | A |
| LOCATION | | | |
| ARCHITECT | | | |
| ENGINEER | | | |
| DWG. NO. | A108-E-WTR-600 | TITLE: | BERNER MODEL A108-E AIR CURTAIN 600V WATER HEATED SYSTEM |
| DATE | 10JUL2023 | | |
| BY | D.Johnson | | |
| REPLACES | 24FEB2023 | | |
| BY | D.Johnson | | BERNER INTERNATIONAL CORP. NEW CASTLE, PA. |