



# ARCHITECTURAL CONTOUR 10

## Hot Water Heated Air Curtain

### Data Sheet

Recommended for Mounting Heights to 10' (environmental separation) and 8' (insect control)

#### STANDARD CONSTRUCTION

- 12 3/4" high x 25 3/4" deep
- 1/2 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

- 1/2 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)
AC10-E-1036W	36.00	3,522	1,916	1,317	80%	0.49	1 @ 1/2	33.2	180°/163°	4.0	0.5	23°	107
AC10-E-1042W	42.00	3,429	1,709	1,371	82%	0.50	1 @ 1/2	36.8	180°/161°	4.0	0.5	25°	119
AC10-E-1048W	48.00	4,040	1,833	1,680	90%	0.63	1 @ 1/2	45.3	180°/161°	5.0	0.8	25°	138
AC10-E-1060W	59.00	4,146	1,541	1,736	85%	0.63	1 @ 1/2	55.1	180°/163°	7.0	1.6	29°	153
AC10-E-2072W	72.00	3,522	1,916	2,634	80%	0.98	2 @ 1/2	74.3	180°/161°	8.0	2.1	26°	210
AC10-E-2084W	84.00	3,429	1,709	2,742	82%	1.00	2 @ 1/2	81.4	180°/159°	8.0	2.2	27°	234
AC10-E-2096W	96.00	4,040	1,833	3,360	90%	1.26	2 @ 1/2	98.9	180°/160°	10.0	3.6	27°	272
AC10-E-2108W	108.00	4,146	1,656	3,416	85%	1.26	2 @ 1/2	106.9	180°/160°	11.0	4.5	29°	287
AC10-E-2120W	118.00	4,146	1,541	3,472	85%	1.26	2 @ 1/2	113.2	180°/161°	12.0	5.5	30°	300
AC10-E-3132W	132.00	4,040	1,855	4,677	80%	1.75	3 @ 1/2	140.7	180°/159°	14.0	7.7	27°	375
AC10-E-3144W	144.00	4,040	1,833	5,040	90%	1.89	3 @ 1/2	153.0	180°/159°	15.0	9.1	28°	406

See sheets EP-276E-AC & EP-276E-EC for amp draws/total load requirements.

600/3/60 power supply includes extended cabinet, See drawing AC10-E-WTR-600

#### NOTES:

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

## MODEL NUMBER CONFIGURATION

### AC10-E-1 036 W A-AC-WCA-SS

Series	Version	# of Motors	Opening Width	Heat	Voltage	Motor Type	Opt. Control	Opt. Cabinet Finish
AC10	E	1, 2, 3	036" - 144"	W=Hot Water Heated	<b>AC &amp; EC motors</b> A = 120/1/60* B = 208/1/60 J = 240/1/60 V = 220/1/50 A-XI = 600/3/60 † <b>EC motors only</b> W = 277/1/60 †	AC= Standard Motor EC= Optional Motor	WCA= Berner AIR™ smart control	SS=Stainless Steel CC=Custom Color

for Standard offering, leave options (Opt.) blank

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

1 motor: Min./Max. Speed: 53/56 dBA  
2 motors: Min./Max. Speed: 56/59 dBA  
3 motors: Min./Max. Speed: 59/61 dBA

Sound data is not AMCA certified.

\*Suitable for 50 Hz  
† Cabinet width increases for transformer

VELOCITY PROJECTION: Model AC10-E-1036W				
Distance from Nozzle (in)	40	80	120	160
Core Velocity (fpm)	1259	876	856	742
Uniformity (%)	83%	88%	92%	96%

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."

Berner reserves the right to alter specifications without prior notice.

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

DS-276E  
September, 2023



# ARCHITECTURAL CONTOUR 10 - AC MOTORS

## Hot Water Heated Air Curtain Electrical Performance Sheet

120/1/60 (voltage code A) MOTOR AMP DRAW = 8.5 each				208/1/60 (voltage code B) MOTOR AMP DRAW = 4.3 each			240/1/60 (voltage code J) or 220/1/50 (voltage code V) MOTOR AMP DRAW = 4.3 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
AC10-E-1036W AC10-E-1042W AC10-E-1048W AC10-E-1060W	1	8.5	15	1	4.3	15	1	4.3	15
AC10-E-2072W AC10-E-2084W AC10-E-2096W AC10-E-2108W AC10-E-2120W	1	17.0	25	1	8.6	15	1	8.6	15
AC10-E-3132W AC10-E-3144W	1	25.5	35	1	12.9	20	1	12.9	20

600/3/60 (voltage code A-XI) XFMR 600/120 1 kVA per MTR @ 1.7 each MOTOR AMP DRAW= 6.6 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
AC10-E-1036W AC10-E-1042W AC10-E-1048W AC10-E-1060W	1	1.7	15	*	*	*
AC10-E-2072W AC10-E-2084W AC10-E-2096W AC10-E-2108W AC10-E-2120W	1	3.3	15	*	*	*
AC10-E-3132W AC10-E-3144W	1	5.0	15	*	*	*

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EP-276E-AC  
June, 2023

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# ARCHITECTURAL CONTOUR 10 - EC MOTORS

## Hot Water Heated Air Curtain Electrical Performance Sheet

120/1/60 (voltage code A) MOTOR AMP DRAW = 6.6 each				208/1/60 (voltage code B) MOTOR AMP DRAW = 4.1 each			240/1/60 (voltage code J) or 220/1/50 (voltage code V) MOTOR AMP DRAW = 4.1 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
AC10-E-1036W AC10-E-1042W AC10-E-1048W AC10-E-1060W	1	6.6	15	1	4.1	15	1	4.1	15
AC10-E-2072W AC10-E-2084W AC10-E-2096W AC10-E-2108W AC10-E-2120W	1	13.2	20	1	8.2	15	1	8.2	15
AC10-E-3132W AC10-E-3144W	1	19.8	25	1	12.3	20	1	12.3	20

600/3/60 (voltage code A-XI) XFMR 600/120 1 kVA per MTR @ 1.7 each MOTOR AMP DRAW= 6.6 each @ 120V				277/1/60 (voltage code W) MOTOR AMP DRAW = 3.6 each		
MODEL	# CKTS	AMPS PER CIRCUIT	BREAKER RATING PER CIRCUIT	# CKTS	AMPS PER CIRCUIT	BREAKER RATING PER CIRCUIT
AC10-E-1036W AC10-E-1042W AC10-E-1048W AC10-E-1060W	1	1.7	15	1	3.6	15
AC10-E-2072W AC10-E-2084W AC10-E-2096W AC10-E-2108W AC10-E-2120W	1	3.3	15	1	7.2	15
AC10-E-3132W AC10-E-3144W	1	5.0	15	1	10.8	15

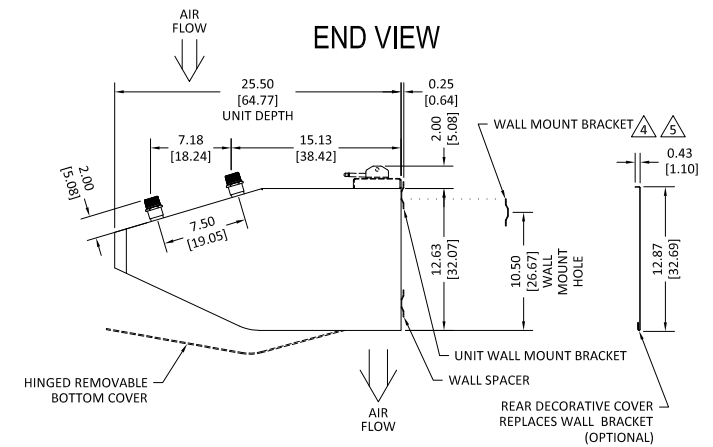
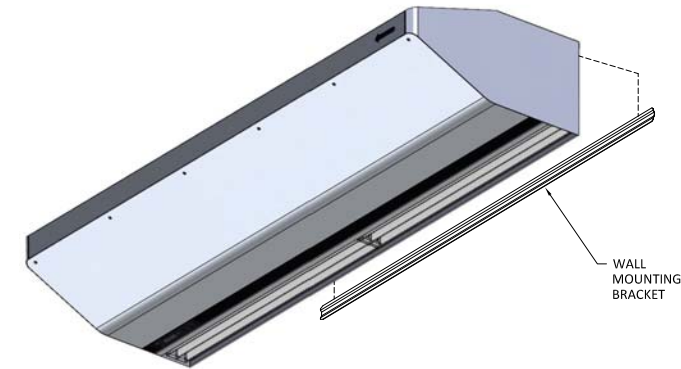
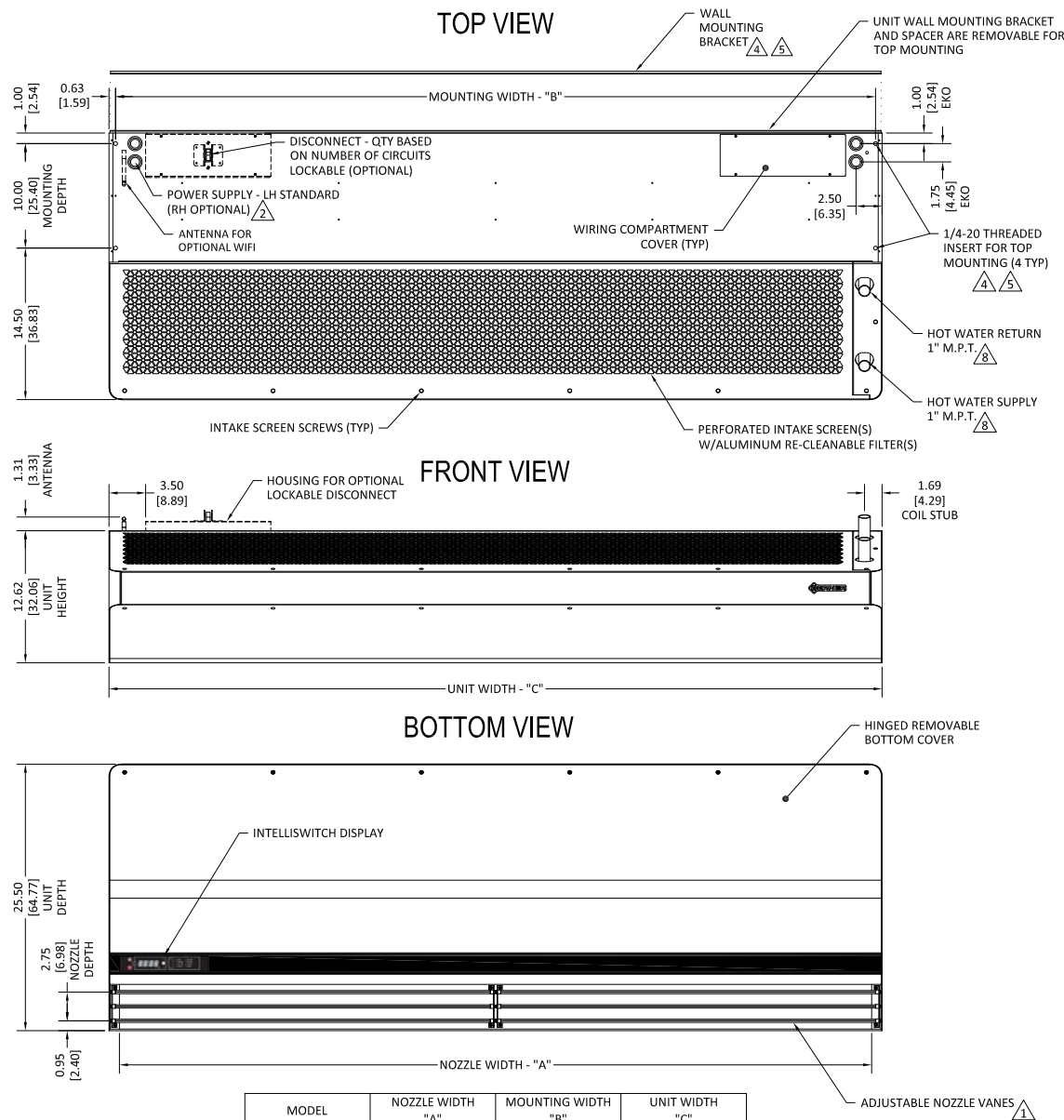
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EP-276E-EC  
June, 2023

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# AC10-E WATER HEATED SYSTEM: 120 - 277V & 380V



## NOTES:

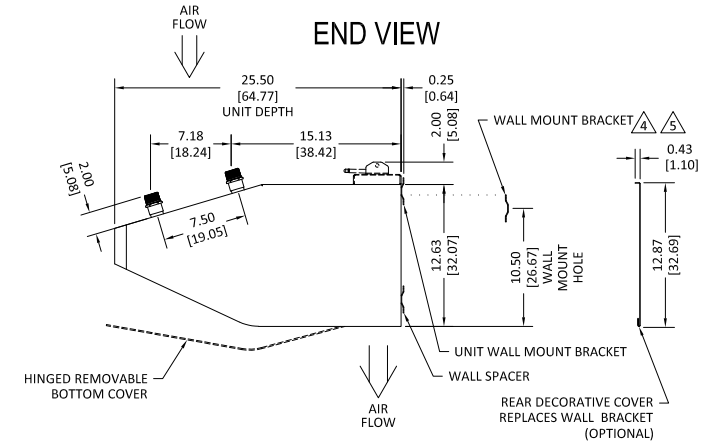
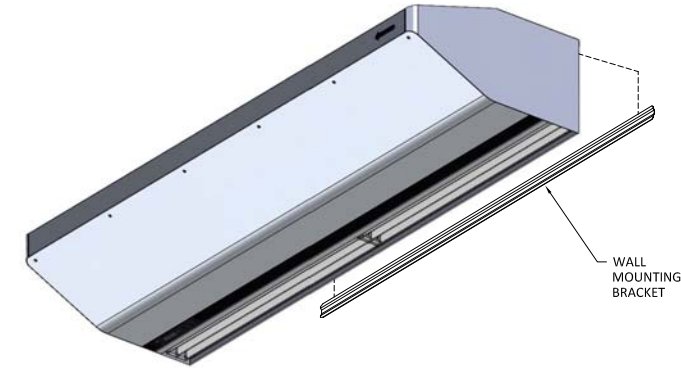
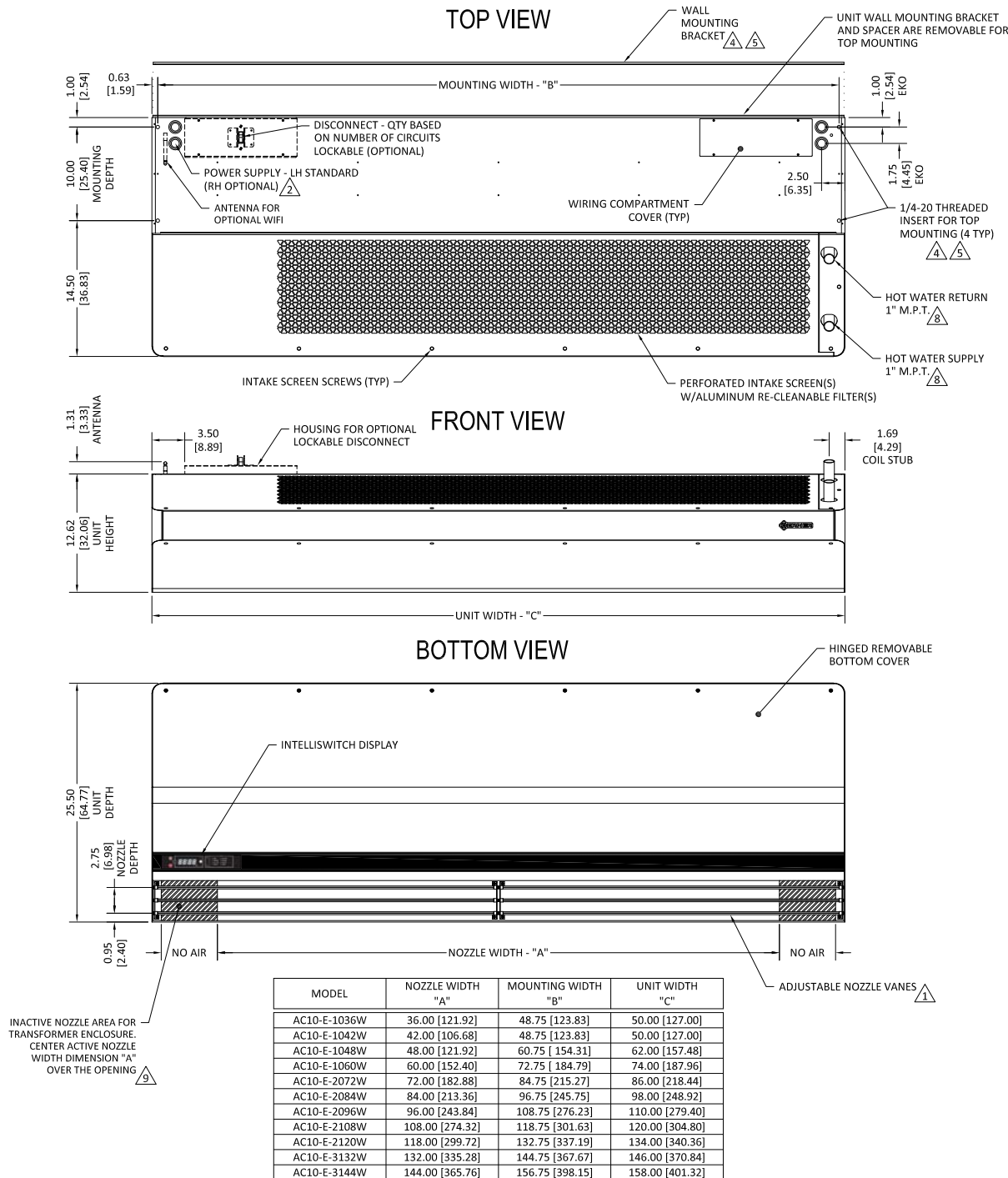
- 1 AIR CURTAIN MUST BE INSTALLED SO AIR STREAM IS NOT OBSTRUCTED WHEN DEFLECTED 20° TO EITHER SIDE OF C.
- 2 ELECTRICAL CONNECTIONS TO BE FLEXIBLE.
- 3 FIELD VERIFY DIMENSIONS.
- 4 ANCHORS TO SUPPORTING STRUCTURE BY OTHERS.
- 5 ADEQUACY OF SUPPORTING STRUCTURE IS TO BE VERIFIED BY A PROFESSIONAL STRUCTURAL 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.

SHEET 1 OF 1

MODEL	NOZZLE WIDTH "A"	MOUNTING WIDTH "B"	UNIT WIDTH "C"
AC10-E-1036W	36.00 [91.44]	36.75 [93.35]	38.00 [96.52]
AC10-E-1042W	42.00 [106.68]	42.75 [108.59]	44.00 [111.76]
AC10-E-1048W	48.00 [121.92]	48.75 [123.83]	50.00 [127.00]
AC10-E-1060W	59.00 [149.86]	59.75 [151.77]	61.00 [154.94]
AC10-E-2072W	72.00 [182.88]	72.75 [184.79]	74.00 [187.96]
AC10-E-2084W	84.00 [213.36]	84.75 [215.27]	86.00 [218.44]
AC10-E-2096W	96.00 [243.84]	96.75 [245.75]	98.00 [248.92]
AC10-E-2108W	108.00 [274.32]	108.75 [276.23]	110.00 [279.40]
AC10-E-2120W	118.00 [299.72]	118.75 [301.63]	120.00 [304.80]
AC10-E-3132W	132.00 [335.28]	132.75 [337.19]	134.00 [340.36]
AC10-E-3144W	144.00 [365.76]	144.75 [367.67]	146.00 [370.84]

PROJECT	REV A	
LOCATION		
ARCHITECT		
ENGINEER		
DWG. NO.	AC10-E-WTR-120	TITLE: <b>BERNER</b>
DATE	28FEB2023	MODEL AC10-E AIR CURTAIN 120 - 277V & 380V WATER HEATED SYSTEM
BY	D. Johnson	
REPLACES	02FEB2022	
BY	D. Johnson	BERNER INTERNATIONAL CORP. NEW CASTLE, PA.

# AC10-E WATER HEATED SYSTEM: 600V



## NOTES:

- 1 AIR CURTAIN MUST BE INSTALLED SO AIR STREAM IS NOT OBSTRUCTED WHEN DEFLECTED 20° TO EITHER SIDE OF C.
- 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.
- 9 NO AIR FLOW, AREA HOUSES TRANSFORMER. CENTER ACTIVE NOZZLE WIDTH DIMENSION "A" OVER THE OPENING.

SHEET 1 OF 1

PROJECT	REV A	
LOCATION		
ARCHITECT		
ENGINEER		
DWG. NO.	AC10-E-WTR-600	<b>TITLE: BERNER</b> MODEL AC10-E AIR CURTAIN 600V WATER HEATED SYSTEM  BERNER INTERNATIONAL CORP. NEW CASTLE, PA
DATE	28FEB2028	
BY	D. Johnson	
REPLACES	02FEB2022	
BY	D. Johnson	