



CED-E



The Customer Entrance Door with electric heat (CED-E) air curtain from Powered Aire is specially designed for high-traffic retail facilities where customer satisfaction is key. The CED-E creates a barrier to keep conditioned air inside the building and unconditioned/unwanted elements out. It also maximizes employee and customer comfort. The CED-E has a gentle airflow and its unique plenum design helps make it one of the quietest air curtains in the industry. The CED-E is capable of being used as an exception to vestibules, having met all the criteria set forth in various codes. It has also been tested in accordance with the ANSI/AMCA 220 Standard to be used as an exception to vestibules.

OPTIONS

HEATING

- Unheatedpg 67
- Hot Waterpg 75
- Steampg 75

FILTER

- ½" Cleanable



AT A GLANCE

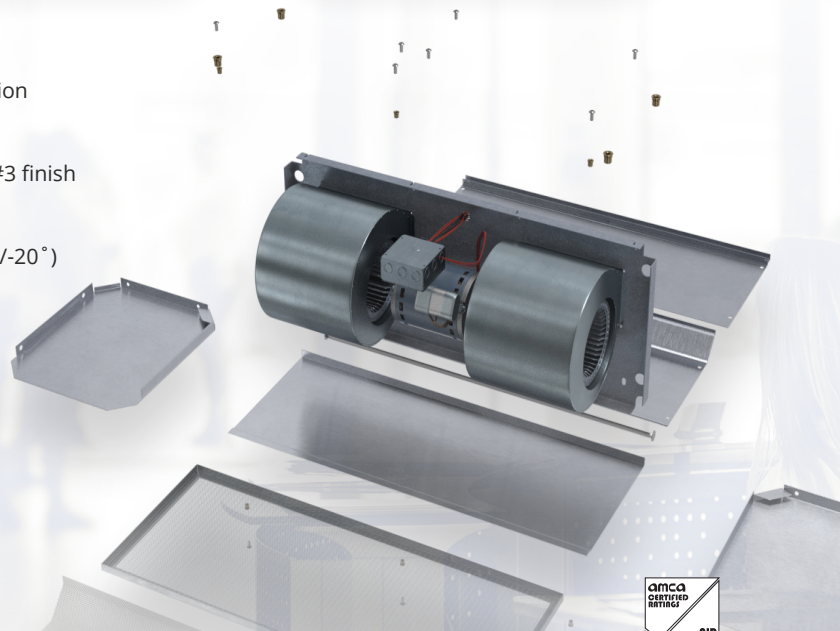
<p>Single Incremental Widths</p> <p>3' to 14'</p>	<p>Max Installation Height</p> <p>11'</p>	<p>Heavy Duty Motors</p> <p>½ HP</p>
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KEY DESIGN FEATURES

- Meets ASHRAE 90.1 and IECC requirements for vestibule exception
- AMCA tested performance
- Outer cabinet constructed of 18-gauge 304 stainless steel with #3 finish
- 1/2 HP ODP (Open Drip Proof) direct-drive dual-speed motor(s)
- High-efficiency discharge plenum with adjustable air foil vane (+/-20°)
- Factory mounted single-stage electric heaters
- Single point power connection available (see electrical table)
- Alternate heater kW available (consult factory)

RECOMMENDED CONTROLS & ACCESSORIES

- Activation by 24V magnetic door switch
- Toggle disconnect switch
- SmartTouch Pro controller
- Filter (washable)



► CED-E | PERFORMANCE

CED-E | Performance Table

MODEL	Nozzle Width (in.)	Max. FPM at Nozzle	Avg. Outlet Velocity (FPM)	Airflow Rate (CFM)	Outlet Velocity Uniformity	Power Rating (kW)	Number of Motors	Motor HP	Weight (lbs)
CED-1-36E	36	3000	1074	795	87%	0.24	1	1/2	88
CED-1-42E	42	3000	1030	886	96%	0.24	1	1/2	95
CED-1-48E	48	3000	987	967	94%	0.25	1	1/2	102
CED-1-60E	60	3000	822	1011	89%	0.25	1	1/2	113
CED-2-72E	72	3000	1074	1590	87%	0.48	2	1/2	172
CED-2-84E	84	3000	1030	1772	96%	0.48	2	1/2	192
CED-2-96E	96	3000	987	1934	94%	0.50	2	1/2	206
CED-3-108E	108	3000	1074	2385	87%	0.72	3	1/2	244
CED-3-120E	118	3000	1039	2557	87%	0.73	3	1/2	272
CED-3-132E	133	3000	9660	2601	87%	0.73	3	1/2	285
CED-4-144E	145	3000	1074	3180	87%	0.96	4	1/2	344
CED-4-156E	157	3000	1051	3362	87%	0.96	4	1/2	362
CED-4-168E	169	3000	1030	3554	96%	0.96	4	1/2	380

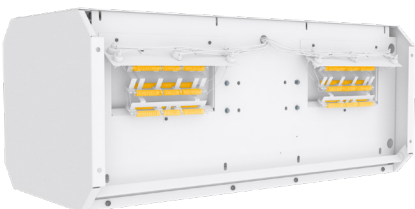
! For a unit over 14 feet long, or a non-standard electric heater kW, consult factory.

CED-E | Velocity Projection

Distance From Nozzle	40"	80"	120"	160"
CED--1-36E Core Velocity (fpm)	859	675	542	437

CED-E | Sound Levels

Measured 10 ft. from unit in a free field based on a 1 motor unit 53 dBA



Performance Highlight

Heating elements are mounted inside the plenum, on the discharge side of the blowers. Here, heat won't affect motor life and the heaters are protected from dust that would accumulate on them if they were mounted on the air intake.

The AMCA Certified Ratings Seal applies to airflow rate, average outlet velocity, outlet velocity uniformity, velocity projection and power rating at free delivery only. Rated data shown are based on tests of units with heating elements present but not in use.

Powered Aire Inc. certifies that the Model CED-E Air Curtain shown herein is licensed to bear the AMCA Seal for Air Performance. 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.

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CED-E | ELECTRICAL

AMP Draw, Circuits & Breaker Size Table

ALL AMP DRAWS LISTED BELOW INCLUDE TOTAL DRAW (MOTOR AND HEATERS INCLUDED)
 * Single Point Power (SPP) includes branch fusing and may require remote control panel.
 ‡ High amp draws may be prohibitive. Reduced and custom kW available. Contact factory.

Models	AMP DRAW (Breaker Size)							
	kW	Temp Rise (°F)	208 / 1 / 60			240 / 1 / 60		
			Circuit 1	Circuit 2	SPP	Circuit		
CED-1-36E / 42E / 48E / 60E	10.0	32	25.4A (35)	24.0A (35)	49.5A (70)	43.1A (60)	-	-
CED-2-72E / 84E / 96E	20.0	33	‡	‡	‡	‡	‡	‡
CED-3-108E / 120E / 132E	30.0	37	‡	‡	‡	‡	‡	‡
CED-4-144E / 156E / 168E	40.0	36	‡	‡	‡	‡	‡	‡

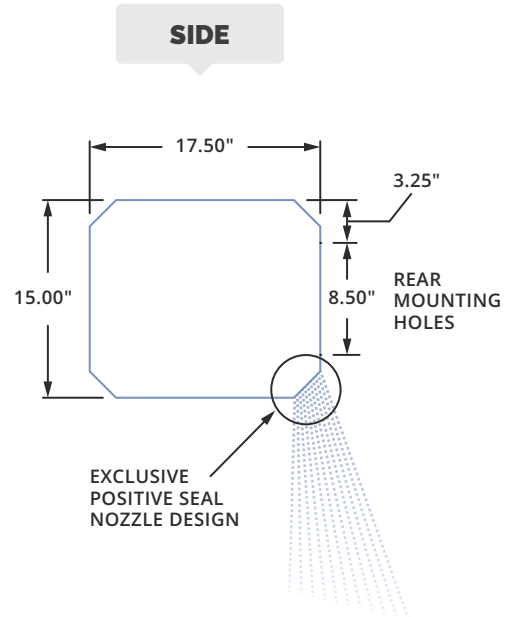
Models	AMP DRAW (Breaker Size)							
	kW	Temp Rise (°F)	208 / 3 / 60			240 / 3 / 60		
			Circuit 1	Circuit 2	SPP	Circuit 1	Circuit 2	SPP
CED-1-36E / 42E / 48E / 60E	10.0	32	29.2A (40)	-	-	25.5A (35)	-	-
CED-2-72E / 84E / 96E	20.0	33	30.6A (40)	27.8A (35)	58.3A (80)	19.6A (25)	16.8A (25)	50.9A (70)
CED-3-108E / 120E / 132E	30.0	37	45.8A (60)	41.6A (60)	87.5A (110)	40.3A (60)	36.1A (50)	76.4A (100)
CED-4-144E / 156E / 168E	40.0	36	‡	‡	‡	‡	‡	‡

Models	AMP DRAW (Breaker Size)							
	kW	Temp Rise (°F)	480 / 3 / 60			575 / 3 / 60		
			Circuit 1	Circuit 2	SPP	Circuit		
CED-1-36E / 42E / 48E / 60E	10.0	32	12.7A (20)	-	-	10.6A (15)	-	-
CED-2-72E / 84E / 96E	20.0	33	25.5A (35)	-	-	21.3A (30)	-	-
CED-3-108E / 120E / 132E	30.0	37	38.2A (50)	-	-	31.9A (40)	-	-
CED-4-144E / 156E / 168E	40.0	36	26.9A (35)	24.1A (35)	50.9A (70)	42.6A (60)	-	-

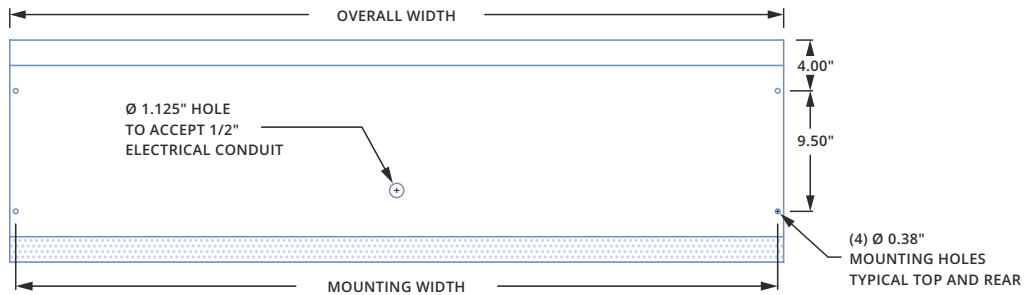
► CED & CED-E | MECHANICAL DETAILS & DRAWINGS

CED & CED-E | Mechanical Information Table

MODEL	Overall Width (in.)	Nozzle Width (in.)	Mounting Width (in.)
CED-1-36 (E)	37	36	36.06
CED-1-42 (E)	43	42	42.06
CED-1-48 (E)	49	48	48.06
CED-1-60 (E)	61	60	60.06
CED-2-72 (E)	73	72	72.06
CED-2-84 (E)	85	84	84.06
CED-2-96 (E)	97	96	96.06
CED-3-108 (E)	109	108	108.06
CED-3-120 (E)	119	118	118.06
CED-3-132 (E)	134	133	133.06
CED-4-144 (E)	146	145	145.06
CED-4-156 (E)	158	157	157.06
CED-4-168 (E)	170	169	169.06



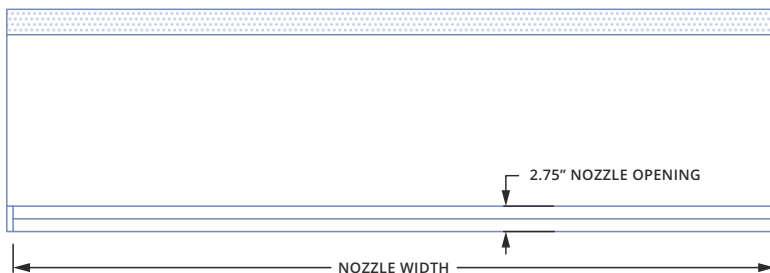
TOP



FRONT



BOTTOM



► CED & CED-E | INSTALLATION

NOTE: The air curtain should be mounted as close to the door header/opening as possible for maximum performance. For every one inch the bottom of the air curtain is mounted above the door header, the back side of the air curtain should be moved away from the wall ¼ inch.

A WALL MOUNT

Back side of air curtain has 4 mounting holes capable of accepting four 3/8 mounting bolts or lags, with washers (use these holes only for mounting). Mark and pre-drill mounting surface accurately. A long extension and ratchet will negate the need to remove the motor-blower plate when installing.

Mounting bolts or lags of sufficient size and strength should be installed and tightened through the four 7/8 inch holes in motor/blower plate.

If motor/blower plate has to be removed, the junction box inside the unit must be removed along with any electrical switches that may be in the way.

The electrical switches have a lever that slides in one direction to release the switch contacts from the switch body. All wires will then stay intact for easy installation when replacing the blower plate.

Remove 7/16 whizlock nuts holding plate in place, and slide plate out, rotating top portion of plate so it comes out first. Remember when installing plate to put bottom of plate in first and rotate top in last.

B WALL MOUNT EXTENSION PLATES

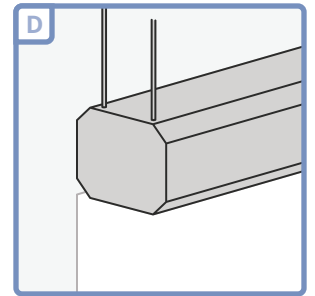
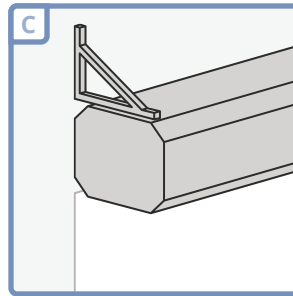
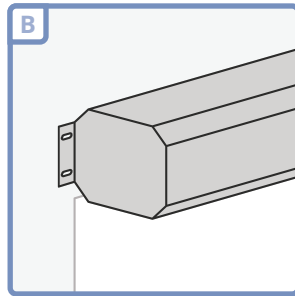
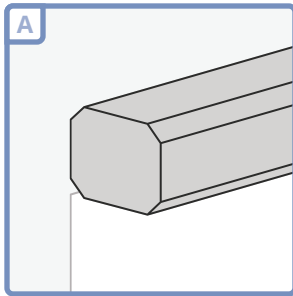
Extension plates bolt onto the back of the unit, utilizing the 4 original mounting holes. Brackets have elongated mounting slots that extend the mounting width by 2-1/2 to 3-1/2 inches.

C BRACKETS

Mounting brackets (also called knee, angle or L-brackets) can be flush to the wall or constructed to account for a projection from the wall. For proper size brackets measure standoff distance from wall to back of where air curtain will be.

D TOP MOUNT

Unit has four 3/8-16 threaded inserts for installing one end of threaded rods. The other ends of the threaded rods can be attached to the ceiling. Threaded rod should not extend more than 3/4 inch into air curtain.



MB123 QUICK MOUNTING PLATE

Optional Installation (See page 240 for more detail)

Step 1

Attach top mounting bracket to back of air curtain using the upper mounting holes on back of unit.

Step 2

Attach the mounting bracket to the wall. Make sure there is sufficient room between mounting plate and ceiling to mount air curtain.

Step 3

Place air curtain over mounting bracket. The top and bottom brackets will lock into place supporting the weight of the air curtain. Attach the bottom bracket to the air curtain using the lower mounting holes.



When mounted, bottom of air curtain is to be flush with bottom of the door header.

