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ECC ECC-E

ECC

ABOVE CEILING

The ECC model air curtain is specifically designed to be dropped into the ceiling above customer entryways where a standard air curtain cannot be exposed.

OPTIONS

HEATING

Electric. . . . . .ECC-E
Hot Water . . . . . .pg 57
Steam . . . . . .pg 57

FILTER

½" cleanable

GRILLE COLOR

The white grille is standard with this model. Consult factory for custom color or metal.

AT A GLANCE

Single Incremental Widths	Max Installation Height	Heavy Duty Motors
3' to 12'	14'	¾ HP

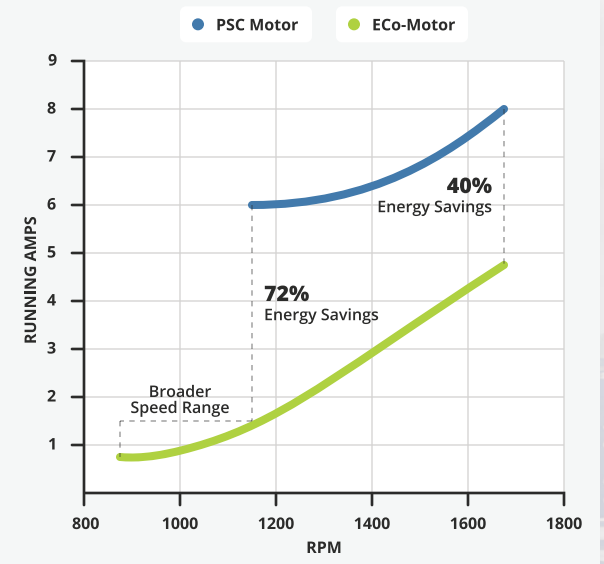
KEY DESIGN FEATURES

- White decorative intake grille with hinged access panel (consult factory for custom finishes)
- 3/4 HP EC (Electronically Commutated) direct-drive motor(s) with 2:1 speed turndown ratio and instantaneous startup
- High-efficiency discharge plenum with adjustable air foil vane (+/-20˚)
- **Electiric Only:** Factory mounted single-stage electric heaters
- **Electiric Only:** Single point power connection available (see electrical table)
- **Electiric Only:** Alternate heater kW available (consult factory)

RECOMMENDED CONTROLS & ACCESSORIES

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

MEASURING EFFICIENCY



Data based on 3/4 HP @ 120V

ECC & ECC-E | PERFORMANCE

ECC & ECC-E | Performance Table

MODEL	Nozzle Width (in.)	Max. FPM at Nozzle	Avg. FPM	Max. CFM	CFM at Nozzle	Outlet Velocity Uniformity	Number of Motors	Motor HP	Weight (lbs) Unheated / Heated
ECC-1-36 (E)	36	4218	3695	2899	2541	95%	1	3/4	179 / 182
ECC-1-48 (E)	48	4218	2771	3867	2559	92%	1	3/4	195 / 204
ECC-1-60 (E)	60	4218	2218	4374	2528	91%	1	3/4	225 / 230
ECC-2-72 (E)	72.07	4218	3696	5803	5082	95%	2	3/4	358 / 364
ECC-2-84 (E)	84.07	4218	3169	6766	5063	93%	2	3/4	371 / 382
ECC-2-96 (E)	96.07	4218	2773	7732	5081	92%	2	3/4	384 / 397
ECC-2-108 (E)	108.07	4218	2472	8216	5090	95%	2	3/4	397 / 417
ECC-3-108 (E)	108.15	4218	3702	8702	7623	92%	3	3/4	537 / 546
ECC-3-120 (E)	120.15	4218	3174	9668	7614	95%	3	3/4	550 / 570
ECC-3-132 (E)	132.15	4218	2792	10177	7589	95%	3	3/4	563 / 584
ECC-4-144 (E)	144.22	4218	3696	11606	10164	95%	4	3/4	716 / 728

! **For a unit over 12 feet long, or a non-standard electric heater kW, consult factory.**

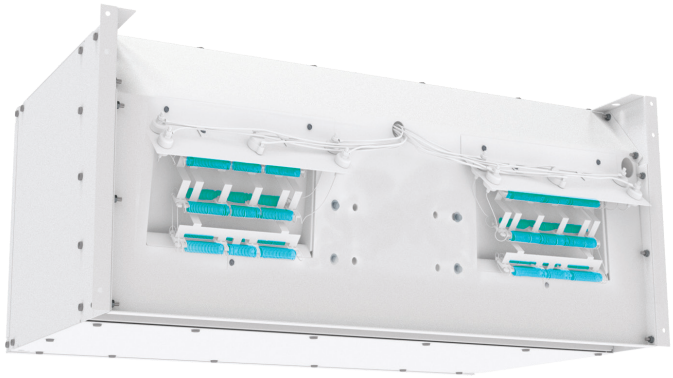
ECC & ECC-E | Sound Levels

High Speed	63 dBA	**Low Speed**	56 dBA	Measured 10 ft. from unit in a free field based on a 1 motor unit

ECC | Amp Draw (Breaker Options)

Motors	120V (MOP)	208-230V (MOP)	277V (MOP)	480V (MOP)	575V (MOP)
ECC-1-36, 42, 48, 60	9.6A (15)	5.8A (15)	5.0A (15)	*	**
ECC-2-72, 84, 96, 108	19.2A (25)	11.6A (15)	10.0A (15)	*	**
ECC-3-108, 120, 132	28.8A (40)	17.4A (25)	15.0A (20)	*	**
ECC-4-144	38.4A (50)	23.2A (30)	20.0A (30)	*	**

* Neutral wire will need to be run to use 277V motor. If not, a transformer will be required **A transformer will be required.



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.

ECC-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.
▶ Orange arrow denotes recommended kW.

Models	AMP DRAW (Breaker Size) *Also available in 277 / 1 / 60 Supply. Please consult factory.*							
	kW	Temp Rise (˚F)	208 / 1 / 60			240 / 1 / 60		
			Circuit 1	Circuit 2	SPP	Circuit 1	Circuit 2	SPP
ECC-1-36E / 48E / 60E	14.0	18	-	-	-	35.0A (45)	29.2A (40)	64.1A (90)
	12.0	15	-	-	-	30.8A (40)	25.0A (35)	55.8A (70)
	▶ 10.0	13	29.8A (40)	24A (35)	53.9A (70)	47.5A (60)	-	-
ECC-2-72E / 84E / 96E / 108E	28.0	18	-	-	-	‡	‡	‡
	24.0	15	-	-	-	‡	‡	‡
	▶ 20.0	13	‡	‡	‡	‡	‡	‡
ECC-3-108E / 120E / 132E	42.0	18	-	-	-	‡	‡	‡
	36.0	15	-	-	-	‡	‡	‡
	▶ 30.0	13	‡	‡	‡	‡	‡	‡
ECC-4-144E	56.0	18	-	-	-	‡	‡	‡
	48.0	15	-	-	-	‡	‡	‡
	▶ 40.0	13	‡	‡	‡	‡	‡	‡

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
ECC-1-36E / 48E / 60E	14.0	18	44.7A (60)	-	-	39.5A (50)	-	-
	12.0	15	39.1A (50)	-	-	34.7A (45)	-	-
	▶ 10.0	13	33.6A (45)	-	-	29.9A (40)	-	-
ECC-2-72E / 84E / 96E / 108E	28.0	18	‡	‡	‡	45.3A (60)	33.7A (45)	79.0A (100)
	24.0	15	44.9A (60)	33.3A (45)	78.2A (100)	40.5A (60)	28.9A (40)	69.3A (90)
	▶ 20.0	13	39.4A (50)	27.8A (35)	67.1A (90)	35.7A (45)	24.1A (35)	59.7A (80)
ECC-3-108E / 120E / 132E	42.0	18	‡	‡	‡	‡	‡	‡
	36.0	15	‡	‡	‡	‡	‡	‡
	▶ 30.0	13	‡	‡	‡	‡	‡	‡
ECC-4-144E	56.0	18	‡	‡	‡	‡	‡	‡
	48.0	15	‡	‡	‡	‡	‡	‡
	▶ 40.0	13	‡	‡	‡	‡	‡	‡

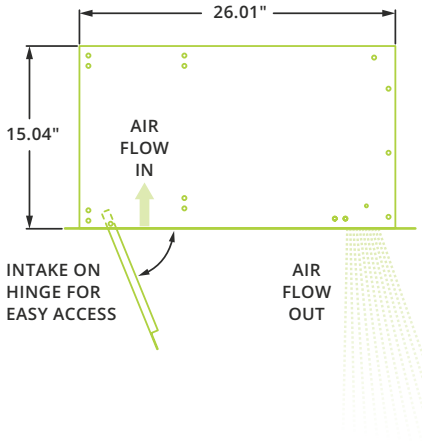
Models	AMP DRAW (Breaker Size) *Also available in 480/ 3 / 60 Supply with Neutral Line. Please consult factory.*							
	kW	Temp Rise (˚F)	480 / 3 / 60 **			575 / 3 / 60 **		
			Circuit 1	Circuit 2	SPP	Circuit 1	Circuit 2	SPP
ECC-1-36E / 48E / 60E	14.0	18	20.0A (25)	-	-	-	-	-
	12.0	15	17.6A (25)	-	-	-	-	-
	▶ 10.0	13	15.2A (20)	-	-	12.6A (20)	-	-
ECC-2-72E / 84E / 96E / 108E	28.0	18	39.9A (50)	-	-	-	-	-
	24.0	15	35.1A (45)	-	-	-	-	-
	▶ 20.0	13	30.3A (40)	-	-	25.3A (35)	-	-
ECC-3-108E / 120E / 132E	42.0	18	35.7A (45)	25.3A (35)	60.9A (80)	-	-	-
	36.0	15	32.1A (45)	21.8A (30)	53.7A (70)	44.8A (60)	-	-
	▶ 30.0	13	46.5A (60)	-	-	38.8A (50)	-	-
ECC-4-144E	56.0	18	46.2A (60)	33.9A (45)	79.9A (100)	-	-	-
	48.0	15	41.4A (60)	29.1A (40)	70.2A (90)	-	-	-
	▶ 40.0	13	36.6A (50)	24.3A (35)	60.6A (80)	30.5A (40)	20.3A (30)	50.6A (70)
			** With Motor Transformer(s)					

ECC & ECC-E | MECHANICAL DETAILS & DRAWINGS

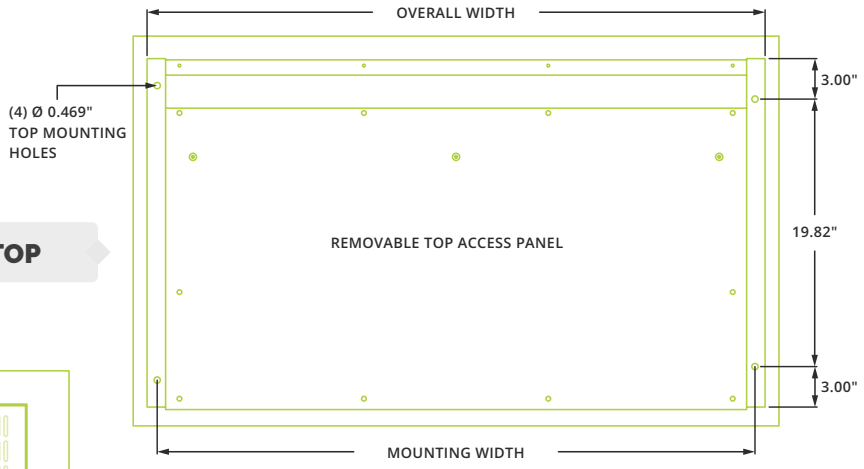
ECC & ECC-E | Mechanical Information Table

MODEL	Nozzle Width (in.)	Overall Width (in.)	Mounting Width (in.)
ECC-1-36 (E)	36	39	37.5
ECC-1-48 (E)	48	51	49.5
ECC-1-60 (E)	60	63	61.5
ECC-2-72 (E)	72.07	75.07	73.57
ECC-2-84 (E)	84.07	87.07	85.57
ECC-2-96 (E)	96.07	99.07	97.57
ECC-2-108 (E)	108.07	111.07	109.57
ECC-3-108 (E)	108.15	111.15	109.65
ECC-3-120 (E)	120.15	123.15	121.65
ECC-3-132 (E)	132.15	135.15	133.65
ECC-4-144 (E)	144.22	147.22	145.72

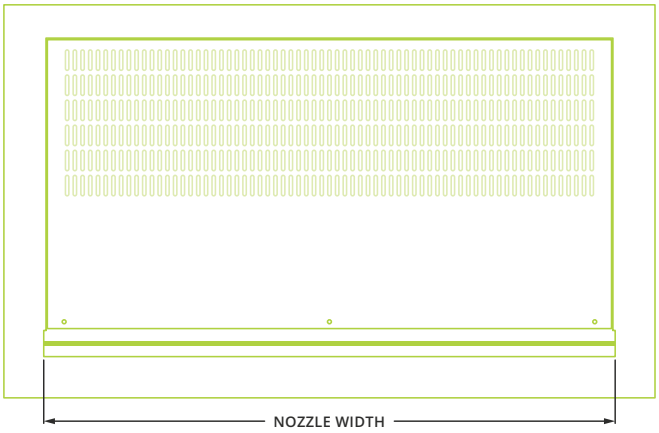
SIDE



TOP



BOTTOM



FRONT

ECC, ECC-E, ECC-HW/ST | INSTALLATION

IMPORTANT

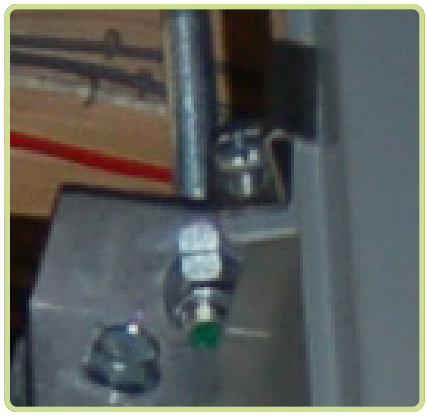
- Trained and experienced mechanic / electrician required.
- **WARNING:**
  Risk of electrical shock, can cause injury or death: Disconnect all remote electrical supplies before servicing.
- Units must be field wired in accordance with all applicable local, state, provincial and national codes, including wire size and materials.
- All hardware and brackets must be of sufficient strength to safely support air curtain.

NOTE

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.

Unit has four 15/32 inch holes for installing one end of 7/16" threaded rods. The other ends of the threaded rods can be attached to the ceiling. Washers and lock washers or locknuts are recommended. Mounting structure should be of sufficient strength to hold air curtain, and hardware (supplied by others) should be of sufficient strength and quality to support the unit safely.

STEP 1
Remove intake/discharge grille from bottom of air curtain. If ceiling is already in place, determine where air curtain location will be and cut a rectangular hole in the ceiling. The hole will be 1 inch longer and wider than the bottom length and width of the air curtain without the intake/discharge grille.



STEP 2
Suspend air curtain using threaded rods so that the bottom of the unit is centered within the cut out in the ceiling. There will be a 1/2 inch gap around the air curtain. Mount the unit so that the bottom is flush with the ceiling.

STEP 3
Attach the intake/discharge grille to the bottom of the air curtain. The grille is larger than the air curtain to cover the gaps between the air curtain and ceiling.