



POWERED AIRE INC.

www.poweredaire.com

109 Mortensen Road
Greenville, PA 16125

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SUGGESTED AIRE CURTAIN SPECIFICATIONS MODEL CED (CSI formatted specifications available at www.poweredaire.com)

All aire curtains furnished are complete factory assembled units as manufactured by Powered Aire Inc. Greenville, PA. Each unit consists of a stainless steel casing, centrifugal fans, raised stainless steel inlet screen, discharge nozzle, motor(s), and an optional 1/2 inch recleanable filter. The aire curtain unit provides a specific CFM and a uniform velocity across the entire length of the discharge area.

Units shall be furnished in single increments of sufficient structural strength to be supported from both ends without intermediate support. Multiple units shall not be permitted. Unit casing shall be a minimum of 18 gauge 304 stainless steel in a number three finish.

Motors at 1/2 H.P. 1075 rpm each shall be heavy duty type equipped with permanently lubricated, shielded ball bearings of equal size at each end and double extended shafts requiring no outboard bearings. Primary motor voltage shall be 115/208/230/480/575 volts 50/60 Hz single phase.

Galvanized fans shall be forward curved centrifugal type, double inlet design, with zinc plated hubs. Tangential type blowers and coupling connection shall not be permitted. Inlet screen shall be perforated stainless steel powder coated black.

Discharge nozzle shall be high efficiency discharge plenum, designed so that the air leaves on a 6 degree plane. Aire curtain creates a positive air seal with directional air foil vane. The vane shall facilitate deflection of air stream ± 20 degrees. Unit shall have multiple speed motor(s) to control air volume down from maximum speed.

Electric Heat Option

Unit(s) shall be provided with a factory mounted electric heating element (capacities as shown on data sheet). The heater shall consist of a factory wired heating coil, with automatic reset thermal overloads. Heating elements shall be mounted inside the plenum, on the discharge side of the blowers (where heat can't affect motor life). Protective screening will not be required on discharge nozzle. A remote or factory mounted heat on/off switch and thermostat available, please specify.

Steam / Hot Water Coil

For steam or hot water heated aire curtains see Hot Water / Steam Heated section of catalog.

Consult factory for optional top air intake.

Aire Curtain unit shall be ETL or UL listed. Unheated units shall have a 24 month warranty on all parts. Heated units shall have an 18 month warranty on all parts.

Control Options for Model CED
Unheated
*** Recommended**

***Built-in Time Delay Relay** -- Provides a delay for shutting off the air curtain after the door is shut. This is useful for doors that see a lot of foot traffic, so the unit is not constantly turning on and off during the day. To be used in conjunction with a door switch.

***Door Switch/Magnetic** -- A non-mechanical door switch that turns the air curtain on when the door is opened.

***High/Off/Low Selector Switch (Remote or Unit Mounted)** -- Switches between the high and low speeds or turns the air curtain off.

Electrically Heated Options
*** Recommended**

***Built-in Time Delay Relay** -- Provides a delay for shutting off the air curtain after the door is shut. This is useful for doors that see a lot of foot traffic, so the unit is not constantly turning on and off during the day. To be used in conjunction with a door switch.

***Door Switch/Magnetic** -- A non-mechanical door switch that turns the air curtain on when the door is opened.

***High/Off/Low Selector Switch (Remote or Unit Mounted)** -- Switches between the high and low speeds or turns the air curtain off.

***Heat On/Off Selector Switch (Remote or Unit Mounted)** -- Turns the electric heat on and off while the fans are running, or when used in conjunction with a thermostat can disable the heat.

***Thermostat (Remote or Unit Mounted)** -- Turns the electric heat in the unit on and off while the fans are running based on the room temperature.

***Single Point Power Connection** -- For units that would typically require more than one power source due to high amp draws according to the National Electric Code, branch fusing can be added so that the unit can be run from a single power source.

Other Options

Cruise Control Programmable Switch -- Digital logic controller with an LCD display that takes the place of several individual control components including a Built-in Time Delay Relay, On/Off/Auto Switch, Heat On/Off Switch, High/Low Switch.

Disconnect-Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected and includes fuses for circuit protection (single point power connection may be required).

Disconnect-Non Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected (single point power connection may be required).

Door Switch/Roller-Plunger -- A mechanical door switch that turns the air curtain on when the door is opened.

Hand/Off/Auto Selector Switch (Remote or Unit Mounted) -- Switches between the unit running constantly in the hand position, off, and auto, which only runs when the door switch is activated.

Motion Detector -- Turns the air curtain on when the sensors detect motion so that the air curtain turns on before the door is opened.

On/Off Selector Switch (Remote or Unit Mounted) -- Switches the air curtain on and off.

Programmable Digital Thermostat -- A thermostat that is programmable with a digital display (7-day, 1/2 hour increments, specify up to 4 time periods per day).



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**MODEL: CED - Dual Speed Unheated
Customer Entrance Door
Door Height: Up to Eleven Feet**

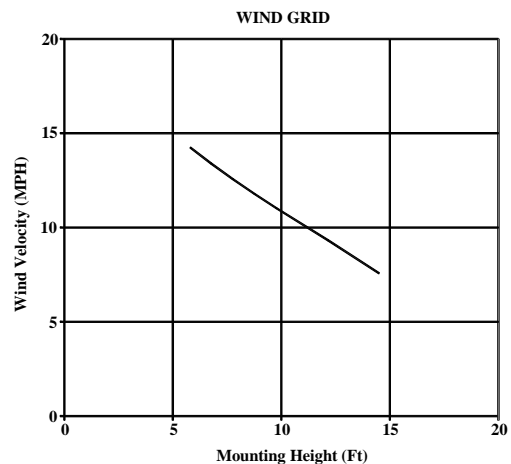
PRODUCT DATA DUAL SPEED UNITS (H) HIGH SPEED (L) LOW SPEED

Model	CED 1-36	CED 1-42	CED 1-48	CED 1-60	CED 2-60	CED 2-72	CED 2-84	CED 2-96	CED 3-108	CED 3-120	CED 3-132	CED 4-144
Nozzle Width Inches	36	42	48	60	60	72	84	96	108	118	133	145
Max. FPM at Nozzle	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748
Max. CFM at Nozzle	H 1309 L 1202	H 1527 L 1402	H 1745 L 1603	H 1790 L 1650	H 2332 L 2254	H 2618 L 2404	H 3054 L 2804	H 3490 L 3204	H 3928 L 3606	H 4364 L 4006	H 4950 L 4658	H 5236 L 4808
Avg. FPM at Nozzle	H 1570 L 1408	H 1346 L 1207	H 1178 L 1056	H 942 L 845	H 1413 L 1268	H 1570 L 1408	H 1346 L 1207	H 1178 L 1056	H 1570 L 1408	H 1421 L 1274	H 1178 L 1056	H 1570 L 1408
CFM at Nozzle	H 1005 L 961	H 1079 L 968	H 1094 L 983	H 1084 L 977	H 1620 L 1453	H 2159 L 1936	H 2093 L 1896	H 2170 L 1942	H 3239 L 2905	H 3230 L 2900	H 3247 L 2912	H 4318 L 3872
Outlet Velocity Uniformity	95%	93%	92%	91%	95%	95%	93%	92%	92%	95%	95%	95%
Number of Motors	1	1	1	1	2	2	2	2	3	3	3	4
Horse Power	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Weight (Lbs)	83	90	97	111	140	162	182	196	239	267	276	324

Sound Level: High Speed 53 dba Low Speed 51 dba
Sound level measured 10 feet from the unit in a free field based on a one motor unit.

Single Phase Motor Voltage Available: 120 208/230 480 575
Amp Draw Per Motor: 2.5 1.4 0.7 0.6

** For unit over twelve feet long consult factory.





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MODEL: CED - Dual Speed Electric Heat
Customer Entrance Door
Door Height: Up to Eleven Feet

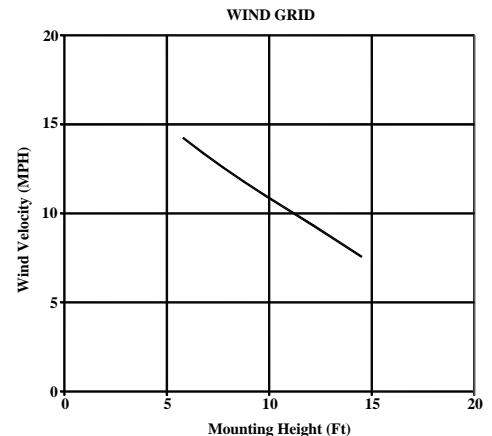
PRODUCT DATA DUAL SPEED UNITS (H) HIGH SPEED (L) LOW SPEED

Model	CED 1-36E	CED 1-42E	CED 1-48E	CED 1-60E	CED 2-60E	CED 2-72E	CED 2-84E	CED 2-96E	CED 3-108E	CED 3-120E	CED 3-132E	CED 4-144E
Nozzle Width Inches	36	42	48	60	60	72	84	96	108	118	133	145
Max. FPM at Nozzle	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748	H 1904 L 1748
Max. CFM at Nozzle	H 1309 L 1202	H 1527 L 1402	H 1745 L 1603	H 1790 L 1650	H 2332 L 2254	H 2618 L 2404	H 3054 L 2804	H 3490 L 3204	H 3928 L 3606	H 4364 L 4006	H 4950 L 4658	H 5236 L 4808
Avg. FPM at Nozzle	H 1570 L 1408	H 1346 L 1207	H 1178 L 1056	H 942 L 845	H 1413 L 1268	H 1570 L 1408	H 1346 L 1207	H 1178 L 1056	H 1570 L 1408	H 1421 L 1274	H 1178 L 1056	H 1570 L 1408
CFM at Nozzle	H 1005 L 961	H 1079 L 968	H 1094 L 983	H 1084 L 977	H 1620 L 1453	H 2159 L 1936	H 2093 L 1896	H 2170 L 1942	H 3239 L 2905	H 3230 L 2900	H 3247 L 2912	H 4318 L 3872
Outlet Velocity Uniformity	95%	93%	92%	91%	95%	95%	93%	92%	92%	95%	95%	95%
Number of Motors	1	1	1	1	2	2	2	2	3	3	3	4
Horse Power	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Heater Kilo Watts	10	10	10	10	15	20	20	20	30	30	30	40
Temperature Rise Deg. (F)	H 29 L 33	H 29 L 33	H 29 L 33	H 29 L 33	H 29 L 33	H 29 L 33	H 29 L 33	H 29 L 33	H 29 L 33	H 29 L 33	H 29 L 33	H 29 L 33
Heater Amps Only	Amp Draw 208/1/60	48.1	48.1	48.1	48.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Amp Draw 240/1/60	41.6	41.6	41.6	41.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Amp Draw 208/3/60	27.7	27.7	27.7	27.7	41.6	55.4	55.4	55.4	83.1	83.1	83.1
	Amp Draw 240/3/60	24.0	24.0	24.0	24.0	36.0	48.0	48.0	48.0	72.0	72.0	72.0
	Amp Draw 480/3/60	12.0	12.0	12.0	12.0	18.0	24.0	24.0	24.0	36.0	36.0	36.0
	Amp Draw 575/3/60	10.1	10.1	10.1	10.1	15.1	20.1	20.1	20.1	30.1	30.1	30.1
Weight (Lbs)	88	95	102	113	150	172	192	206	244	272	285	344

Sound Level: High Speed 53 dba Low Speed 51 dba
Sound level measured 10 feet from the unit in a free field based on a one motor unit.

Single Phase Motor Voltage Available: **120 208/230 480 575**
Amp Draw Per Motor: **2.5 1.4 0.7 0.6**

- ** Nozzle width equals door width.
- ** For three phase motors consult factory.
- ** For unit over twelve feet long and nonstandard electric heater consult factory.



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March, 2011

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