



# POWERED AIRE INC.

[www.poweredaire.com](http://www.poweredaire.com)

109 Mortensen Road  
Greenville, PA 16125

Phone: 724-588-3305  
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## *mini-power*<sup>™</sup>

### **SUGGESTED AIRE CURTAIN SPECIFICATIONS (CSI formatted specifications available at [www.poweredaire.com](http://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, tangential fan wheel(s), raised stainless steel inlet screen, discharge nozzle and motor(s). 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 shall be 1/5 H.P., double shaft, resiliently mounted, heavy duty type equipped with permanently lubricated, shielded ball bearings of equal size at each end. Primary motor voltage shall be 115/208/230/480/575 volts 50/60 Hz single phase.

Aluminum fans shall be balanced forward curved tangential (crossflow) wheels with flexible hubs. Plastic fan wheels and rolled fan scrolls shall not be permitted. Inlet screen shall be perforated stainless steel powder coated black.

Discharge nozzle shall be integral part of housing with adjustable aluminum steering vane(s) to facilitate deflection of air stream  $\pm 20$  degrees.

#### **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. A remote heat on/off switch and thermostat available, please specify.

#### **Steam / Hot Water Coil**

For steam or hot water heated units consult factory.

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.

**March, 2011**

## Control Options for Model MP

### 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.

**\*Variable Speed Selector Switch (Remote or Unit Mounted)** -- Varies the speed between high and low ranges or turns the air curtain off. (Voltage: 120,208,240/1/50,60 and 208,240/3/50,60)

**\*High/Off/Low Selector Switch (Remote or Unit Mounted)** -- Switches between the high and low speeds or turns the air curtain off. (Voltage: 480,575/3/50,60).

### Electric, Hot Water or Steam 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** -- Non-mechanical door switch that turns air curtain on when the door is opened.

**\*Variable Speed Selector Switch (Remote or Unit Mounted)** -- Varies the speed between high and low ranges or turns the air curtain off. (Voltage: 120,208,240/1/50,60 and 208,240/3/50,60)

**\*High/Off/Low Selector Switch (Remote or Unit Mounted)** -- Switches between the high and low speeds or turns the air curtain off. (Voltage: 480,575/3/50,60).

**\*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 or gas heat in the unit on and off while the fans are running based on the room temperature.

### 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-Non Fused** -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected (not available on units with electric heat).

**Door Switch/Roller-Plunger** -- Mechanical door switch that turns 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). For hot water or steam units, this will only control the fans.



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## mini-power™

**Variable Speed Unheated Low Profile Unit (120/208/230)**

**Dual Speed Unheated Low Profile Unit (480/575)**

**Door Height: Up to Ten Feet**

### PRODUCT DATA

Model	MP 1-30	MP 1-36	MP 1-42	MP 1-48	MP 1-60	MP 2-72	MP 2-84	MP 2-96	MP 2-108	MP 2-120
Nozzle Width Inches	29	35	41	47	59	71	83	95	107	117
Max. FPM at Nozzle	3050	3050	3050	3050	3050	3050	3050	3050	3050	3050
Avg. FPM at Nozzle	2045	2142	2086	2045	1928	2142	2087	2045	2142	2103
CFM at Nozzle	897	1178	1339	1500	1767	2356	2678	3005	3534	3856
Outlet Velocity Uniformity	92%	95%	95%	92%	92%	95%	95%	95%	95%	95%
Number of Motors	1	1	1	1	1	2	2	2	2	2
Horse Power	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/5
Weight (Lbs)	42	53	60	67	85	94	105	114	130	141

Sound Level: 53 dba

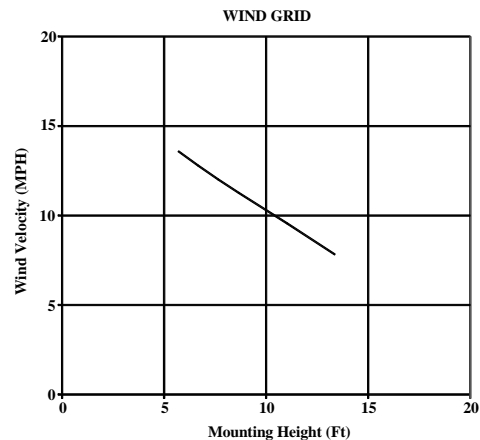
Sound level measured 10 feet from the unit in a free field based on a one motor unit.

**Single Phase Motor Voltage Available: 120 208/230 480 575**

**Amp Draw Per Motor: 4.4 2.0 1.1 0.9**

\*\* Nozzle width equals door width.

\*\* Data shown is for highest speed setting.



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Variable Speed Electric Heated Low Profile Unit (120/208/240)

Dual Speed Electric Heated Low Profile Unit (480/575)

Door Height: Up to Ten Feet

### PRODUCT DATA

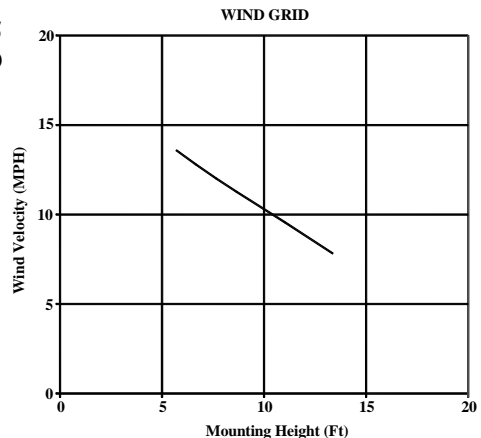
Model	MP 1-30E	MP 1-36E	MP 1-42E	MP 1-48E	MP 1-60E	MP 2-72E	MP 2-84E	MP 2-96E	MP 2-108E	MP 2-120E
Nozzle Width Inches	29	35	41	47	59	71	83	95	107	117
Max. FPM at Nozzle	3050	3050	3050	3050	3050	3050	3050	3050	3050	3050
Avg. FPM at Nozzle	2045	2142	2086	2045	1928	2142	2087	2045	2142	2103
CFM at Nozzle	897	1178	1339	1500	1767	2356	2678	3005	3534	3856
Outlet Velocity Uniformity	92%	95%	95%	92%	92%	95%	95%	95%	95%	95%
Number of Motors	1	1	1	1	1	2	2	2	2	2
Horse Power	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/5
Heater KiloWatts	8	8	8	16	16	16	24	32	32	32
Temperature Rise Deg. (F)	24	22	20	33	29	22	29	33	29	27
Heater Amps Only	Amp Draw 208/1/60	38.5	38.5	38.5	NA	NA	NA	NA	NA	NA
	Amp Draw 240/1/60	33.3	33.3	33.3	NA	NA	NA	NA	NA	NA
	Amp Draw 208/3/60	22.2	22.2	22.2	44.5	44.5	44.5	66.7	88.9	88.9
	Amp Draw 240/3/60	19.3	19.3	19.3	38.5	38.5	38.5	57.8	77.1	77.1
	Amp Draw 480/3/60	9.6	9.6	9.6	19.3	19.3	19.3	28.9	38.5	38.5
	Amp Draw 575/3/60	8.0	8.0	8.0	16.1	16.1	16.1	24.1	32.2	32.2
Weight (Lbs)	47	59	69	77	91	102	115	123	139	152

Sound Level: 53 dba

Sound level measured 10 feet from the unit in a free field based on a one motor unit.

Single Phase Motor Voltage Available: **120 208/240 480 575**  
 Amp Draw Per Motor: **4.4 2.0 1.1 0.9**

\*\* Nozzle width equals door width.  
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