



# Cabinet Cooler® Systems

## Stop electronic control downtime due to heat, dirt, and moisture!

### Cabinet Coolers maintain NEMA 4, 4X, and 12 integrity. All Cabinet Coolers are



and **CE** compliant!



EXAIR Cabinet Cooler Systems accurately maintain the temperature inside the enclosure.

### What is an EXAIR Cabinet Cooler® System?

A low cost, reliable way to cool and purge electronic control panels. EXAIR Cabinet Coolers incorporate a vortex tube to produce cold air from compressed air - **with no moving parts**. The compact Cabinet Cooler can be installed in minutes through a standard electrical knockout. NEMA 12, 4, and 4X Cabinet Coolers that match the NEMA rating of the enclosure are available in many cooling capacities for large and small control panels.

### Why EXAIR Cabinet Cooler® Systems?



Watch the video!

[www.exair.com/ccvideo.htm](http://www.exair.com/ccvideo.htm)

The vortex tubes incorporated in the EXAIR Cabinet Coolers are constructed of **stainless steel**. The wear, corrosion and oxidation resistance of stainless steel assures long life and maintenance free operation. **All Cabinet Coolers are UL Listed and CE compliant.**



A Model 4830 NEMA 4 Cabinet Cooler cools a panel with 20°F air while keeping the inside dry.

#### Applications

- Programmable controllers
- Line control cabinets
- Motor control centers
- Relay panels
- NC/CNC systems
- Modular control centers
- CCTV cameras
- Computer cabinets
- Cool laser housings
- Electronic scales
- Food service equipment

#### Advantages

- Low cost
- Compact
- Cooling capacities to 5,600 Btu/hr. (1411 Kcal/hr.)
- Quiet
- Install in minutes
- Maintain NEMA 12, 4 and 4X integrity (IP54 and 66)
- Stabilize enclosure temperature and humidity
- No CFC's
- No moving parts — maintenance free
- Mount in standard electrical knockout

- Stop nuisance tripping
- Stop heat damage
- Eliminate fans and filters
- Eliminate lost production
- Stop circuit drift
- Stop dirt contamination
- Provide washdown protection

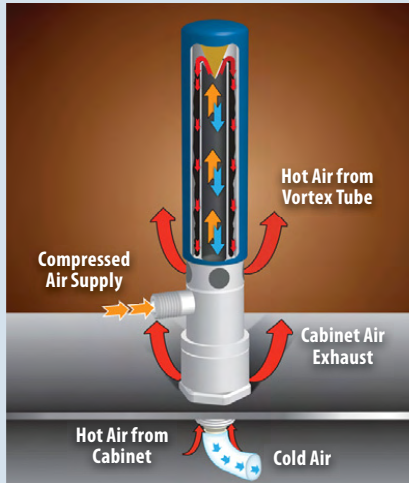
#### Special Cabinet Coolers

- High temp. models for ambients up to 200°F (93°C) available
- Type 316 stainless steel available
- Purge models for non-hazardous locations available

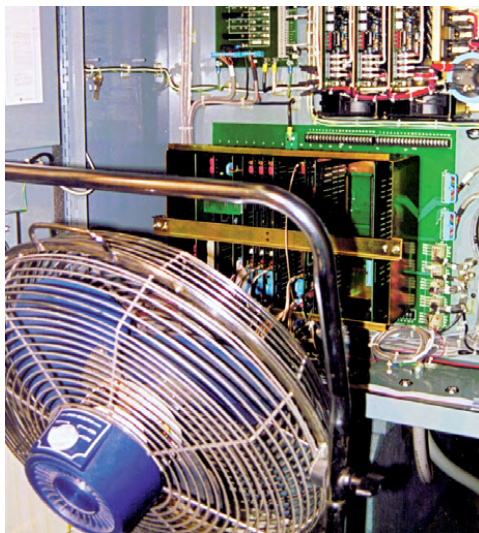
Cabinet Coolers

# Cabinet Cooler® Systems

## How The Cabinet Cooler Works



Compressed air enters the vortex tube powered Cabinet Cooler and is converted into two streams, one hot and one cold. (For more information on vortex tube operation, see page 134.) Hot air from the vortex tube is muffled and exhausted through the **vortex tube exhaust**. The cold air is discharged into the control cabinet through the cold air distribution kit. The displaced hot air in the cabinet rises and exhausts to atmosphere through the **cabinet air exhaust** at a slight positive pressure. Thus, the control cabinet is both cooled and purged with cool, clean air. **Outside air is never allowed to enter the control panel.**



A dangerous shock hazard exists when the panel door is opened to let a fan blow hot, dirty shop air at the electronics.

## Selecting The Right Model

EXAIR Cabinet Cooler® Systems are available with or without thermostat control. The continuous coolers (Model 4200 and 4700 series) are recommended when constant cooling and a constant positive purge are desirable. The thermostatically controlled systems (Model 4300 and 4800 series) save air by activating the cooler only when internal temperatures approach critical levels. The adjustable thermostat is factory set at 95°F (35°C). Thermostatic systems are recommended where heat load fluctuates and continual purge is not required.

All EXAIR Cabinet Cooler® Systems contain a 5 micron **Automatic Drain Filter** for the compressed air supply and a **Cold Air Distribution Kit** to circulate the cold air throughout the enclosure. See page 154 for details.

A



## Heat Can Stop Your Machines

When hot weather causes the electronics inside a control cabinet to fail, there is a panic to get the machinery up and running again. There are several cooling options out there and it's important to know the facts.

### A. Heat Exchangers and Heat Pipes

These have serious limitations. On hot summer days when the temperatures of the room and inside of the enclosure are about equal, there's not enough difference for effective heat exchange.

- They fail when dust and dirt clogs the filter
- The cooling capacity is limited due to ambient conditions

B



### B. Refrigerant Panel Air Conditioners

These coolers are prone to failure in dirty, industrial environments when dust and dirt clog the filter.

- It takes almost a day to install
- Vibration from machinery causes refrigerant leaks and component failures

C



### C. "Plastic Box" Coolers

The "plastic box" cooler from a competitor uses an inaccurate mechanical thermostat that's designed for liquids. This thermostat has a poor ability to react quickly to changes in air temperature.

**It costs up to 85% more to operate than EXAIR's ETC Cabinet Cooler® System with the same SCFM rating and Btu/hr. output.**

- Electronics can overheat before it turns on
- It runs far longer than necessary before shutting off



## EXAIR Cabinet Cooler® Systems

EXAIR has a complete line of Cabinet Cooler Systems to dependably cool and purge your electrical enclosures. They convert an ordinary supply of compressed air into clean, cold 20°F air. They mount in minutes through an ordinary electrical knockout and have no moving parts to wear out. The compressed air filtration that is provided keeps water, oil and other contaminants out of the enclosure.

- There is no room air filter to clog
- An accurate electrical thermostat control minimizes compressed air use
- All Cabinet Coolers are UL Listed to US and Canadian safety standards
- They are the only compressed air powered coolers that are CE compliant



Cabinet Cooler® System Specifications					
Model #	Capacity*		Thermostat Control	Sound Level dBA	
	Btu/hr.	Kcal/hr.			
<b>NEMA 12 (IP54)</b> (Dust, Oil resistant)	4208	550	139	No	67**
	4215	1000	252	No	73**
	4225	1700	428	No	74**
	4230	2000	504	No	74**
	4240	2800	706	No	78**
	4250	3400	857	No	75**
	4260	4000	1007	No	77**
	4270	4800	1209	No	77**
	4280	5600	1411	No	79**
	4308	550	139	Yes	67**
	4315	1000	252	Yes	73**
	4325	1700	428	Yes	74**
	4330	2000	504	Yes	74**
	4340	2800	706	Yes	78**
	4350	3400	857	Yes	75**
	<b>NEMA 4 (IP66)</b> (Splash resistant)	4708	550	139	No
4715		1000	252	No	73
4725		1700	428	No	80
4730		2000	504	No	80
4740		2800	706	No	82
4750		3400	857	No	84
4760		4000	1007	No	84
4770		4800	1209	No	84
4780		5600	1411	No	85
4808		550	139	Yes	67**
4815		1000	252	Yes	73
4825		1700	428	Yes	80
4830		2000	504	Yes	80
4840		2800	706	Yes	82
4850		3400	857	Yes	84
4860		4000	1007	Yes	84
4870	4800	1209	Yes	84	
4880	5600	1411	Yes	85	
<b>NEMA 4X (IP66)</b> (Corrosion resistant)  (Available in 316SS)	4708SS	550	139	No	67**
	4715SS	1000	252	No	73
	4725SS	1700	428	No	80
	4730SS	2000	504	No	80
	4740SS	2800	706	No	82
	4750SS	3400	857	No	84
	4760SS	4000	1007	No	84
	4770SS	4800	1209	No	84
	4780SS	5600	1411	No	85
	4808SS	550	139	Yes	67**
	4815SS	1000	252	Yes	73
	4825SS	1700	428	Yes	80
	4830SS	2000	504	Yes	80
	4840SS	2800	706	Yes	82
	4850SS	3400	857	Yes	84
	4860SS	4000	1007	Yes	84
4870SS	4800	1209	Yes	84	
4880SS	5600	1411	Yes	85	

\*Cooling Capacity at 100 PSIG (6.9 BAR) Supply Pressure.  
\*\*with optional cold muffler installed.

## Environmental Considerations

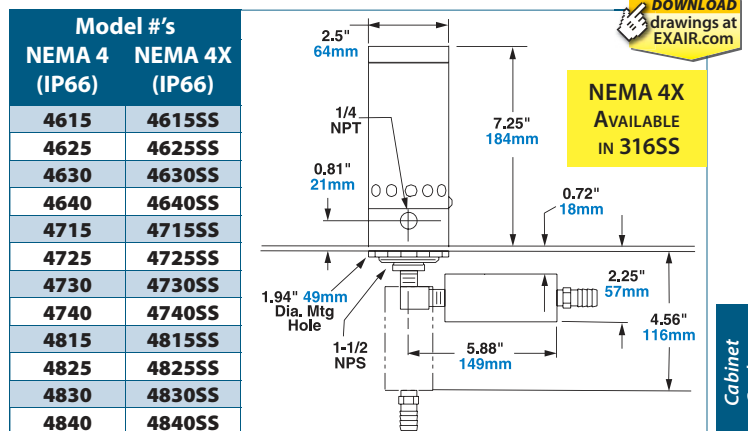
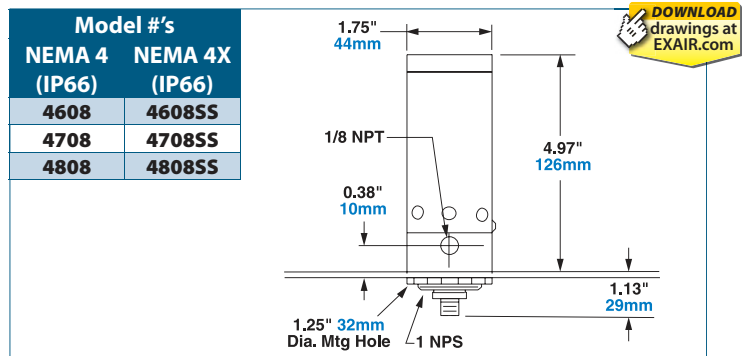
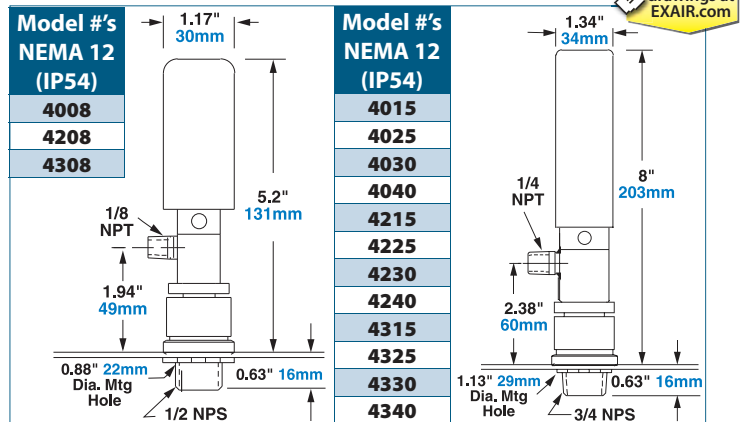
NEMA 12 (IP54) Cabinet Coolers (dust-tight, oil-tight) are ideal for general industrial environments where no liquids or corrosives are present.

NEMA 4 (IP66) Cabinet Coolers (dust-tight, oil-tight, splash resistant, indoor/outdoor service) incorporate a low pressure relief valve for both the vortex tube and cabinet air exhaust. This valve closes and seals when the cooler is not operating, **to maintain the integrity of a NEMA 4 enclosure.**

NEMA 4X (IP66) Cabinet Coolers offer the same protection as NEMA 4 but are **constructed of stainless steel for food service and corrosive environments.**

See page 156 for a complete description of each Cabinet Cooler and Cabinet Cooler System.

## Dimensions



# Cabinet Cooler® Systems

## Sizing Guide - How To Calculate Heat Load For Your Enclosure

To determine the correct model for your application, it is first necessary to determine the **total heat load** to which the control panel is subjected. This total heat load is the combination of two factors - heat dissipated within the enclosure and heat transfer from outside into the enclosure.

### To Calculate Btu/hr.:

1. First, determine the approximate watts of heat generated within the enclosure.  $\text{Watts} \times 3.41 = \text{Btu/hr.}$
2. Then, calculate outside heat transfer as follows:
  - a. Determine the area in square feet exposed to the air, ignoring the top of the cabinet.
  - b. Determine the temperature differential between maximum surrounding temperature and desired internal temperature. Then, using the Temperature Conversion Table (*below*), determine the Btu/hr./ft.<sup>2</sup> for that differential. Multiplying the cabinet surface area times Btu/hr./ft.<sup>2</sup> provides external heat transfer in Btu/hr.
3. Add internal and external heat loads for total heat load.

### To Calculate Kcal/hr.:

1. First, determine the approximate watts of heat generated within the enclosure.  $\text{Watts} \times .86 = \text{Kcal/hr.}$
2. Then, calculate outside heat transfer as follows:
  - a. Determine the area in square meters exposed to the air, ignoring the top of the cabinet.
  - b. Determine the temperature differential between maximum surrounding temperature and desired internal temperature. Then, using the Metric Temperature Conversion Table (*below*), determine the Kcal/hr./m<sup>2</sup> for that differential. Multiplying the cabinet surface area times Kcal/hr./m<sup>2</sup> provides external heat transfer in Kcal/hr.
3. Add internal and external heat loads for total heat load.

Temperature Conversion Table	
Temperature Differential °F	Btu/hr./ft. <sup>2</sup>
5	1.5
10	3.3
15	5.1
20	7.1
25	9.1
30	11.3
35	13.8
40	16.2

### Need Help Sizing EXAIR Cabinet Coolers?

1. Fill out and fax us the "Cabinet Cooler Sizing Guide" on page 153.
2. For answers NOW, call our Application Engineering Department at 1-800-903-9247.

Temperature Conversion Table (METRIC)	
Temperature Differential °C	Kcal/hr./m <sup>2</sup>
3	4.5
6	9.7
9	15.1
12	21.0
15	27.0
18	34.0
21	41.0

#### Example:

Internal heat dissipation: 471 Watts or 1606 Btu/hr.  
 Cabinet area: 40 ft.<sup>2</sup>  
 Maximum outside temperature: 110°F  
 Desired internal temperature: 95°F

The conversion table (*above*) shows that a 15°F temperature differential inputs 5.1 Btu/hr./ft.<sup>2</sup>

$40 \text{ sq. ft.} \times 5.1 \text{ Btu/hr./ft.}^2 = 204 \text{ Btu/hr.}$  external heat load.

Therefore, 204 Btu/hr. external heat load plus 1606 Btu/hr. internal heat load = 1810 Btu/hr. total heat load or Btu/hr. refrigeration required to maintain desired temperature.

In this example, the correct choice is a 2000 Btu/hr. Cabinet Cooler System. Choose a Cabinet Cooler model by determining the NEMA rating of the enclosure (type of environment), and with or without thermostat control.

#### Example:

Internal heat dissipation: 471 Watts or 405 Kcal/hr.  
 Cabinet area: 3.7m<sup>2</sup>  
 Maximum outside temperature: 44°C  
 Desired internal temperature: 35°C

The conversion table (*above*) shows that a 9°C temperature differential inputs 15.1 Kcal/hr./m<sup>2</sup>.

$3.7\text{m}^2 \times 15.1 \text{ Kcal/hr./m}^2 = 56 \text{ Kcal/hr.}$  external heat load.

Therefore, 56 Kcal/hr. external heat load plus 405 Kcal/hr. internal heat load = 461 Kcal/hr. total heat load or Kcal/hr. refrigeration required to maintain desired temperature.

In this example, the correct choice is a 504 Kcal/hr. Cabinet Cooler System. Choose a Cabinet Cooler model by determining the NEMA rating of the enclosure (type of environment), and with or without thermostat control.

## Special Cabinet Coolers

EXAIR manufactures special NEMA 12, 4, and 4X Cabinet Coolers suited to specific environmental requirements:

**High Temperature Cabinet Coolers** (*shown top right*) for ambients of 125° to 200°F (52° to 93°C) are available. Internal components can withstand high temperatures (like those near furnaces, ovens, etc.).

**Non-Hazardous Purge Cabinet Cooler Systems** (*shown middle right*) are ideal for dirty areas where contaminants might normally pass through small holes or conduits. Under normal conditions, the NHP Cabinet Cooler Systems provide a slight positive pressure in the enclosure by passing 1 SCFM (28 SLPM) of air through the cooler, when the solenoid valve is in the closed position. When the thermostat detects high temperature, it energizes the solenoid valve to pass full line pressure to the Cabinet Cooler, giving it full cooling capability.

**Type 316 Stainless Steel NEMA 4X Cabinet Coolers** (*shown bottom right*) are suitable for food service, pharmaceutical, harsh and corrosive environments, and other applications where 316SS is preferred. Capacities from 650 to 2800 Btu/hr. (164 to 706 Kcal/hr.) are available.



**Fax Us The Facts!**

## Cabinet Cooler Sizing Guide

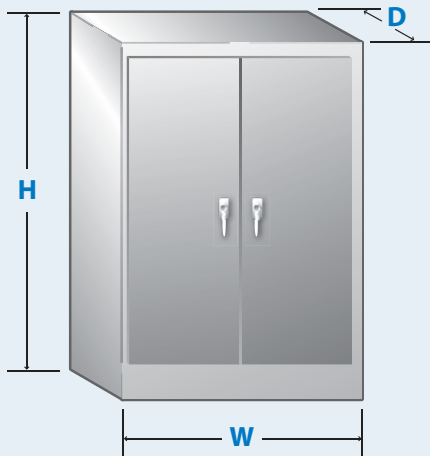
Use this form to fax us information about your control panel cooling problem. We'll fax back our recommended solution within 24 hours.

To: Application Engineering Department, **EXAIR**® Corporation  
 From: **Name** \_\_\_\_\_  
**Company** \_\_\_\_\_  
**FAX number** \_\_\_\_\_  
**Phone number** \_\_\_\_\_ **Ext.#** \_\_\_\_\_  
**E-mail** \_\_\_\_\_

In a hurry? For help NOW, call our Application Engineering Department 1-800-903-9247

**You can fill this form out online at:**  
[www.exair.com/sizing.htm](http://www.exair.com/sizing.htm)

I have completed the information below. I want to know which EXAIR Cabinet Cooler System is the best choice for my control panel.



1. Height \_\_\_\_\_ 2. Width \_\_\_\_\_ 3. Depth \_\_\_\_\_

4. External air temperature now? \_\_\_\_\_ °F or °C

5. Internal air temperature now? \_\_\_\_\_ °F or °C

6. Maximum external air temperature possible? \_\_\_\_\_ °F or °C

7. Maximum internal air temperature desired? \_\_\_\_\_ °F or °C

8. My cabinet rating is:

NEMA 12     NEMA 4     NEMA 4X

Other (explain) \_\_\_\_\_

9. My cabinet is (check all that apply):

Vented - outside air circulates through the enclosure

Free standing

Not vented - outside air does not circulate through the enclosure

Wall mounted

Fan(s)

Indicate diameter or SCFM \_\_\_\_\_

Number of fans \_\_\_\_\_

**Our Toll Free Fax Number Is (866) 329-3924 (U.S. and Canada)**  
 (513) 671-3363 for International Faxes

# Cabinet Cooler® Systems



## Cold Air Distribution Kit:

The kit includes a length of flexible vinyl tubing used to direct the cold air for circulation, or to hot spots. Tubing connectors and adhesive backed clips to hold the tubing in place are provided.



Systems for continuous operation include a Cabinet Cooler, cold air distribution kit and filter.

**Filtration:** EXAIR Cabinet Cooler Systems include a 5 micron automatic drain water and dirt filter. This filter is **critical** for protection of electronics from water in the compressed air line. If oil is present in the compressed air, a coalescing (oil removal) filter, such as EXAIR Model 9005 is recommended.



Systems with thermostat control include a Cabinet Cooler, thermostat, solenoid valve, cold air distribution kit and filter.

**Humidity:** For a continuous operating Cabinet Cooler, relative humidity inside the enclosure stabilizes at 45%. No moisture condenses inside the enclosure. (The enclosure must be sealed to prevent condensation.)

**Inlet Air Temperature:** Cabinet Cooler Systems provide a 50°F (28°C) temperature drop from supply air temperature when the inlet pressure is 80 PSIG (5.5 BAR). Elevated inlet temperature will produce a corresponding rise in cold air temperature and reduction in cooling capacity. Low air pressures will also reduce the cooling capacity.

**Mounting:** The Cabinet Cooler mounts to the enclosure through a drilled hole or electrical knockout. The NEMA 12 Cabinet Coolers may be mounted on the top or side of the panel. NEMA 4 and 4X Cabinet Coolers must be mounted on the top of the panel, or on the side of the panel using one of our Side Mount Kits (see page 157).



## Solenoid Valve and Thermostat.

### Solenoid Valve and Thermostat:

Cabinet Cooler Systems with thermostat control include a solenoid valve and thermostat that limit the flow of compressed air to only when cooling is needed. The solenoid valve is rated 120V, 60 Hz or 110V, 50 Hz. It is UL Listed, CSA Certified. See page 157 for more options.

The thermostat is factory set at 95°F (35°C). It will normally hold ±2°F (1°C) inside the cabinet. It is rated 24V-240V, 50/60 Hz and is UL Recognized, CSA Certified.



## ETC™ Electronic Temperature Control

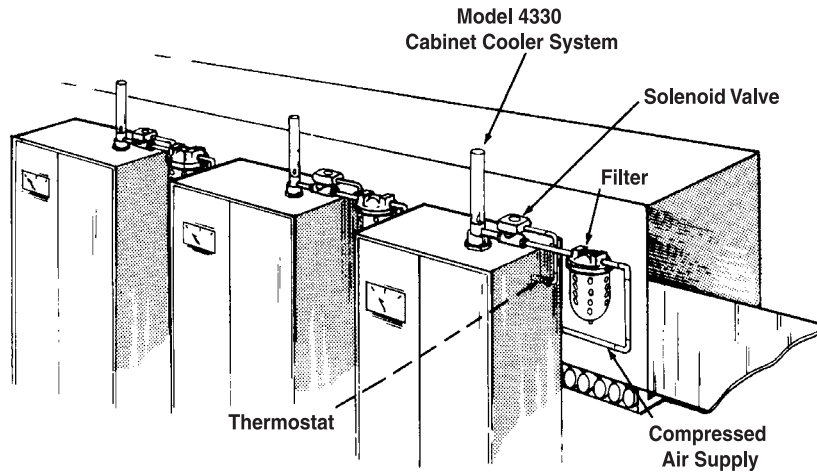


**Model 9238** - 120VAC, 50/60 Hz  
**Model 9239** - 240VAC, 50/60 Hz

Setting Temperature: Membrane push button control  
Power Supply Current: 165 mA max  
Sensor: Type J Thermocouple  
ETC enclosure: Polycarbonate NEMA 4X, IP 65, UL508, UL94-5V  
Temperature Sampling Rate: 1 Reading/second  
Max. Temp.: 158°F (70°C)  
Solenoid Valve: 1/4 NPT  
RoHS and CE Compliant

EXAIR's digital ETC (Electronic Temperature Control) provides precise temperature control for your electrical enclosure. It can accurately maintain a constant temperature that is slightly under the maximum rating of the electronics, permitting just enough cooling for the electronics without going so cold as to waste compressed air. The LED readout of the ETC displays the internal temperature of the electrical enclosure (°F or °C) that is constantly being monitored by a quick response thermocouple. The control activates the solenoid valve (included) when the temperature setting is exceeded. The polycarbonate plastic enclosure of the ETC is suitable for NEMA 12, 4 and 4X environments. (Cabinet Cooler not included.)

## Cooling Control Panels In A Glass Plant



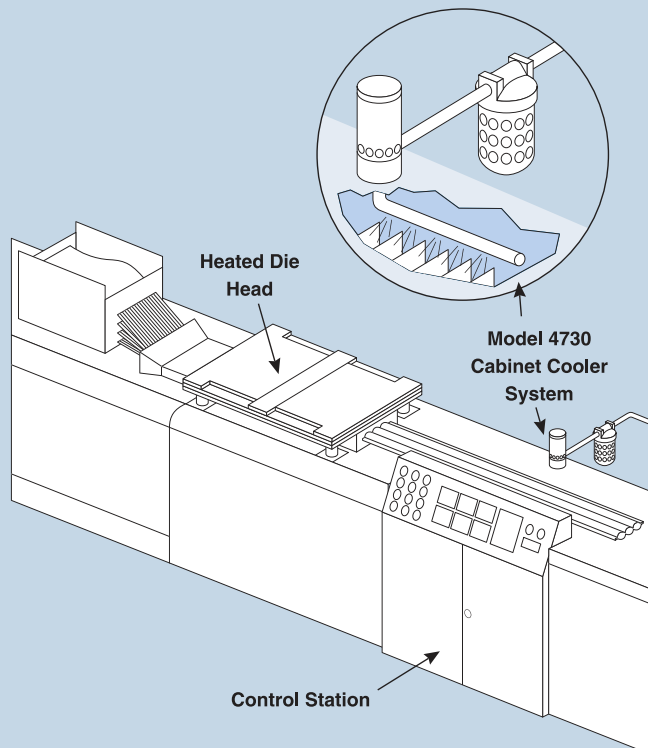
**The Problem:** Few companies contend with more heat-related problems than do glass manufacturers. Control panels in close proximity to molten glass are particularly susceptible. High ambient temperatures caused constant “nuisance tripping” of the circuit breakers. The “quick fix” solution — opening the panel doors — allowed dirt to enter the panels and created a potential safety hazard.

**The Solution:** EXAIR Model 4330 Cabinet Cooler Systems were installed on each control panel. Cold air was directed through the Cold Air Distribution Kit

over the circuit breakers. Thermostat control assured that the **Cabinet Coolers would activate only when internal temperatures approached critical levels.** The panel doors were closed to prevent dirt infiltration and shock hazard. Downtime was eliminated.

**Comment:** The inherent reliability of the vortex tube operated Cabinet Cooler was the important advantage in this application. Because they have no moving parts, **EXAIR Cabinet Coolers are virtually impervious to hostile environments.** Glass plants, steel mills, foundries, and casting plants are just a few of the facilities benefiting from this simple, yet effective technology.

## Cooling And Purging A Pultrusion Control



**The Problem:** In the pultrusion process, resin coated fibers are assembled by a forming guide, then drawn through a heated die. Residual heat from the die caused electronic malfunctions at the control station located immediately downstream.

**The Solution:** In minutes, a **Model 4730 NEMA 4 Cabinet Cooler System** was installed on the control module. **Its 2,000 Btu/hr. (504 Kcal/hr.) cooling capacity more than offset the additional heat load produced by the die.** Heat related malfunctions and downtime were eliminated.

**Comment:** The ability of EXAIR's Cabinet Cooler System to maintain a slight positive pressure within the enclosure was an important additional benefit in this application. **This purging feature assured that dust from the surroundings would not infiltrate the enclosure and compromise the sensitive electronic components.** The Cabinet Cooler also maintained the NEMA 4 integrity of the enclosure which was necessary for the occasional washdown of the die and surrounding surfaces.

# Cabinet Cooler® Systems

## NEMA 12 Cabinet Cooler Systems

The following **Continuous Operation Systems** include the NEMA 12 Cabinet Cooler, automatic drain filter and cold air distribution kit.

Model #	Description
4208	550 Btu/hr. (139 Kcal/hr.)
4215	1000 Btu/hr. (252 Kcal/hr.)
4225	1700 Btu/hr. (428 Kcal/hr.)
4230	2000 Btu/hr. (504 Kcal/hr.)
4240	2800 Btu/hr. (706 Kcal/hr.)
4250	3400 Btu/hr. (857 Kcal/hr.)
4260	4000 Btu/hr. (1007 Kcal/hr.)
4270	4800 Btu/hr. (1209 Kcal/hr.)
4280	5600 Btu/hr. (1411 Kcal/hr.)

The following **Thermostat Control Systems** include the NEMA 12 Cabinet Cooler, automatic drain filter, cold air distribution kit, thermostat and solenoid valve.

Model #	Description
4308	550 Btu/hr. (139 Kcal/hr.)
4315	1000 Btu/hr. (252 Kcal/hr.)
4325	1700 Btu/hr. (428 Kcal/hr.)
4330	2000 Btu/hr. (504 Kcal/hr.)
4340	2800 Btu/hr. (706 Kcal/hr.)
4350	3400 Btu/hr. (857 Kcal/hr.)
4360	4000 Btu/hr. (1007 Kcal/hr.)
4370	4800 Btu/hr. (1209 Kcal/hr.)
4380	5600 Btu/hr. (1411 Kcal/hr.)

## NEMA 4 Cabinet Cooler Systems

The following **Continuous Operation Systems** include the NEMA 4 Cabinet Cooler, automatic drain filter and cold air distribution kit.

Model #	Description
4708	550 Btu/hr. (139 Kcal/hr.)
4715	1000 Btu/hr. (252 Kcal/hr.)
4725	1700 Btu/hr. (428 Kcal/hr.)
4730	2000 Btu/hr. (504 Kcal/hr.)
4740	2800 Btu/hr. (706 Kcal/hr.)
4750	3400 Btu/hr. (857 Kcal/hr.)
4760	4000 Btu/hr. (1007 Kcal/hr.)
4770	4800 Btu/hr. (1209 Kcal/hr.)
4780	5600 Btu/hr. (1411 Kcal/hr.)

The following **Thermostat Control Systems** include the NEMA 4 Cabinet Cooler, automatic drain filter, cold air distribution kit, NEMA 4/4X solenoid valve and thermostat.

Model #	Description
4808	550 Btu/hr. (139 Kcal/hr.)
4815	1000 Btu/hr. (252 Kcal/hr.)
4825	1700 Btu/hr. (428 Kcal/hr.)
4830	2000 Btu/hr. (504 Kcal/hr.)
4840	2800 Btu/hr. (706 Kcal/hr.)
4850	3400 Btu/hr. (857 Kcal/hr.)
4860	4000 Btu/hr. (1007 Kcal/hr.)
4870	4800 Btu/hr. (1209 Kcal/hr.)
4880	5600 Btu/hr. (1411 Kcal/hr.)

## NEMA 4X Stainless Steel Cabinet Cooler Systems

The following **Continuous Operation Systems** include the NEMA 4X Cabinet Cooler, automatic drain filter and cold air distribution kit.

Model #	Description
4708SS	550 Btu/hr. (139 Kcal/hr.)
4715SS	1000 Btu/hr. (252 Kcal/hr.)
4725SS	1700 Btu/hr. (428 Kcal/hr.)
4730SS	2000 Btu/hr. (504 Kcal/hr.)
4740SS	2800 Btu/hr. (706 Kcal/hr.)
4750SS	3400 Btu/hr. (857 Kcal/hr.)
4760SS	4000 Btu/hr. (1007 Kcal/hr.)
4770SS	4800 Btu/hr. (1209 Kcal/hr.)
4780SS	5600 Btu/hr. (1411 Kcal/hr.)

The following **Thermostat Control Systems** include the NEMA 4X Cabinet Cooler, automatic drain filter, cold air distribution kit, NEMA 4/4X solenoid valve and thermostat.

Model #	Description
4808SS	550 Btu/hr. (139 Kcal/hr.)
4815SS	1000 Btu/hr. (252 Kcal/hr.)
4825SS	1700 Btu/hr. (428 Kcal/hr.)
4830SS	2000 Btu/hr. (504 Kcal/hr.)
4840SS	2800 Btu/hr. (706 Kcal/hr.)
4850SS	3400 Btu/hr. (857 Kcal/hr.)
4860SS	4000 Btu/hr. (1007 Kcal/hr.)
4870SS	4800 Btu/hr. (1209 Kcal/hr.)
4880SS	5600 Btu/hr. (1411 Kcal/hr.)



NEMA 12, 4, and 4X Cabinet Coolers are available in many cooling capacities for large and small control panels.

NEMA 4X models are available in Type 316 stainless steel.

High Temperature and Non-Hazardous Purge Cabinet Coolers are described on page 153.

24VDC Solenoid Valves are available.

If you have special requirements, please contact an Application Engineer.

## Cabinet Cooler Only

### NEMA 12 Cabinet Coolers Only

Model #	Description
4008	550 Btu/hr. (139 Kcal/hr.), 1/8 NPT
4015	1000 Btu/hr. (252 Kcal/hr.), 1/4 NPT
4025	1700 Btu/hr. (428 Kcal/hr.), 1/4 NPT
4030	2000 Btu/hr. (504 Kcal/hr.), 1/4 NPT
4040	2800 Btu/hr. (706 Kcal/hr.), 1/4 NPT

### NEMA 4 Cabinet Coolers Only

Model #	Description
4608	550 Btu/hr. (139 Kcal/hr.), 1/8 NPT
4615	1000 Btu/hr. (252 Kcal/hr.), 1/4 NPT
4625	1700 Btu/hr. (428 Kcal/hr.), 1/4 NPT
4630	2000 Btu/hr. (504 Kcal/hr.), 1/4 NPT
4640	2800 Btu/hr. (706 Kcal/hr.), 1/4 NPT

### NEMA 4X Cabinet Coolers Only

Model #	Description
4608SS	550 Btu/hr. (139 Kcal/hr.), 1/8 NPT
4615SS	1000 Btu/hr. (252 Kcal/hr.), 1/4 NPT
4625SS	1700 Btu/hr. (428 Kcal/hr.), 1/4 NPT
4630SS	2000 Btu/hr. (504 Kcal/hr.), 1/4 NPT
4640SS	2800 Btu/hr. (706 Kcal/hr.), 1/4 NPT



## Upgrade your Thermostat Control System

Upgrade your Thermostat Control System to EXAIR's ETC™ Electronic Temperature Control (shown on page 154)

Simply add a:

“-ETC120” (for 120V, 50/60Hz) or  
“-ETC240” (for 240V, 50/60Hz) to your Thermostat Control Cabinet Cooler System model number.

Example:

Model 4330-ETC120 replaces the standard thermostat and solenoid valve with the ETC.



Dual Cabinet Cooler Systems are available with cooling capacities up to 5,600 Btu/hr. (1,411 Kcal/hr.).



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## Accessories and Components

Model #	Description	Model #	Description
<b>4904</b>	Cold Air Distribution Kit (For all Cabinet Coolers except 550 Btu/hr. output)	<b>9044</b>	Valve and Thermostat Kit, (240V, 50/60Hz)
<b>4905</b>	Cold Air Distribution Kit (For Cabinet Coolers with 550 Btu/hr. output only)	<b>9016</b>	NEMA 4-4X Valve and Thermostat Kit, (120V, 50/60Hz)
<b>9004</b>	Automatic Drain Filter Separator, 1/4 NPT, 43 SCFM (1359 SLPM)	<b>9045</b>	NEMA 4-4X Valve and Thermostat Kit, (240V, 50/60Hz)
<b>9027</b>	Oil Removal Filter (For Cabinet Coolers with 550 Btu/hr. output), 1/4 NPT, 7-24 SCFM (198-680 SLPM)	<b>9017</b>	Thermostat Only, (24V-240V, 50/60Hz)
<b>9005</b>	Oil Removal Filter (For all Cabinet Coolers except 550 Btu/hr. output), 3/8 NPT, 15-37 SCFM (425-1048 SLPM)	<b>9018</b>	NEMA 4-4X Solenoid Valve Only, (120V, 50/60Hz), 1/4 NPT, 40 SCFM (1133 SLPM)
<b>9006</b>	Oil Removal Filter, 3/4 NPT, 50-150 SCFM (1415-4248 SLPM)	<b>9024</b>	NEMA 4-4X Solenoid Valve Only, (240V, 50/60Hz), 1/4 NPT, 40 SCFM (1133 SLPM)
<b>9008</b>	Pressure Regulator with Gauge, 1/4 NPT, 50 SCFM (1415 SLPM)	<b>9020</b>	Solenoid Valve Only, (120V, 50/60Hz), 1/4 NPT, 40 SCFM (1133 SLPM)
<b>9238</b>	ETC - Electronic Temperature Control, (120V, 50/60Hz), 1/4 NPT	<b>9021</b>	Solenoid Valve Only, (200-240V, 50/60Hz), 1/4 NPT, 40 SCFM (1133 SLPM)
<b>9239</b>	ETC - Electronic Temperature Control, (240V, 50/60Hz), 1/4 NPT	<b>9031</b>	Solenoid Valve Only, 24VDC, 1/4 NPT, 40 SCFM (1133 SLPM)
<b>9015</b>	Valve and Thermostat Kit, (120V, 50/60Hz)	<b>9065</b>	Solenoid Valve Only, 24VDC, 1 NPT, 350 SCFM (9911 SLPM)

**EXAIR's Side Mount Kits for NEMA 12, 4 and 4X Cabinet Coolers offer convenient mounting to the side of an electrical enclosure.**

### Side Mount Kits

EXAIR's Side Mount Kits make mounting on the side of an electrical enclosure possible when there is limited space on the top or side. (NEMA 4 and 4X Cabinet Cooler Systems must be mounted vertically.) The Side Mount Kits maintain the NEMA rating of large and small NEMA Type 12, 4 and 4X enclosures. They mount in a standard electrical knockout (1-1/2 NPS). Side Mount Kits for NEMA 12 Cabinet Cooler Systems have an aluminum construction. Those for NEMA 4 and 4X Cabinet Cooler Systems are Type 303 or Type 316 stainless steel.



## Accessories and Components

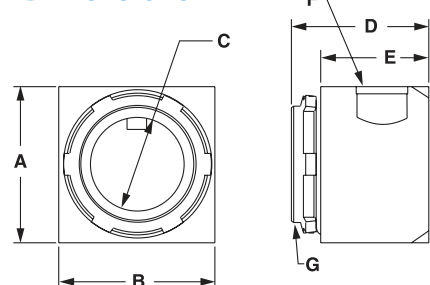
Model #	Description
<b>4909</b>	Side Mount Kit for NEMA 12 Cabinet Coolers up to 550 Btu/hr. (139 Kcal/hr.)
<b>4910</b>	Side Mount Kit for NEMA 12 Cabinet Coolers, 650 Btu/hr. (165 Kcal/hr.) and higher
<b>4906</b>	Side Mount Kit for NEMA 4 and 4X Cabinet Coolers up to 550 Btu/hr. (139 Kcal/hr.)
<b>4907</b>	Side Mount Kit for NEMA 4 and 4X Cabinet Coolers, 650 Btu/hr. (165 Kcal/hr.) and higher
<b>4907-316</b>	Type 316 Stainless Steel Side Mount Kit for NEMA 4 and 4X Cabinet Coolers, 650 Btu/hr. (165 Kcal/hr.) and higher



## 90 Degree Side Mount Kit Dimensions

Model		A	B	C	D	E	F	G
<b>4906</b>	in	2.50	2.50	1.50	3.50	3.03	1 NPS	1-1/2 NPS
	mm	64	64	38	89	77		
<b>4907</b>	in	2.50	2.50	1.50	3.50	3.03	1-1/2 NPS	1-1/2 NPS
	mm	64	64	38	89	77		
<b>4909</b>	in	2.50	2.50	1.50	2.19	1.73	1/2 NPS	1-1/2 NPS
	mm	64	64	38	56	44		
<b>4910</b>	in	2.50	2.50	1.50	2.19	1.73	3/4 NPS	1-1/2 NPS
	mm	64	64	38	56	44		

### Side Mount Kit Dimensions



[DOWNLOAD Drawings at EXAIR.com](#)