

VORTEX A/C

How it Works

The Vortex A/C utilizes vortex tube technology to create refrigerated air. With no moving parts, a vortex tube spins compressed air into a vortex with rotational speeds of up to 1,000,000 RPM. The spinning airflow separates into hot and cold airstreams, with cold air temperatures reaching as low as 50°F below the compressed air inlet temperature. The cold air stream passes through an external muffler before it is released into the electrical enclosure. The hot air stream is muffled and exhausted out the back of the unit. The refrigerated air entering the enclosure creates a positive pressure of approximately 2" water column inside the enclosure to keep external dust and dirt from entering the cabinet. As cold air loses its refrigeration to cool the electronics, it forces hot air to rise in the enclosure where it is pushed out through vent openings in the Vortex A/C, exiting out the back of the unit. A highly reliable, built-in mechanical thermostat operates a valve to control airflow and cooling.

Vortex A/C

When the going gets tough...

Using vortex tube technology, cold air is generated by the Vortex A/C from the compressed air supply and is distributed throughout the enclosure. Since ambient air never enters the cabinet, it's perfect for harsh, dirty environments. In fact,

the Vortex A/C features an optional "purge-air" port that, when opened, will provide a constant positive pressure inside the enclosure to purge the cabinet of any contaminated surrounding air. Withstanding extreme temperature conditions, the Vortex A/C will provide reliable cooling operation in environments up to 175 °F (79 °C).

Compare The Differences

	Vortex A/C	Refrigerant-based Air conditioners
Physical size (in cubic inches)	204	3200 to 5200
Average installation time	15 min.	3 hours
Maximum ambient temperature	175 °F (79 °C)	131 °F (55 °C)
Operating noise level	62-64 dBA	62-64 dBA
Optional continuous enclosure purge	Yes	No
Weight	6 lb	52 lb (typical)
Mounting Footprint	25.5 sq. in.	212 sq. in. (typical)
Warranty	10 Years	1 Year

Specifications

MODEL NO.	Cooling Capacity		Air Consumption	
	BTUH	Kcal/hr.	SCFM	SLPM
7715	900	225	15	425
7725	1500	378	25	708
7735	2500	630	35	991

The only non-electric, below-ambient cooling device for electrical enclosures and control panels, providing self-regulating, 80 - 90 °F (27 - 32 °C) protection in environments up to 175 °F (79 °C).



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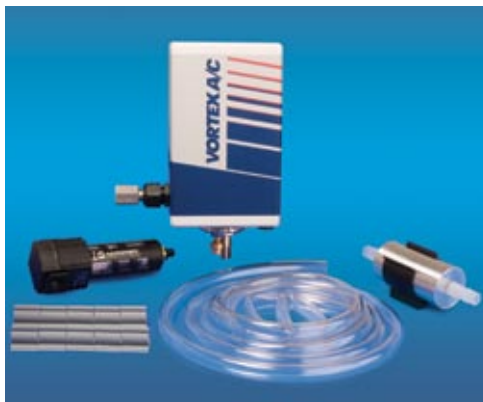


The Vortex A/C meets NEMA standards for Type 4 and 4X rated enclosures, with models available to deliver 900, 1500, and 2500 BTUH of refrigeration.

Its cooling capacity can handle the thermal management requirements of all sizes of enclosures. The compact size and light weight of the Vortex A/C makes it perfect for operator interface panels and pendant arm enclosures.

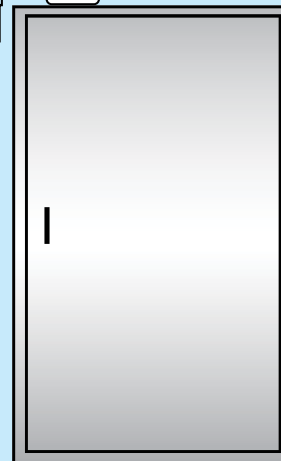
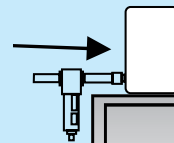
- **Quiet, reliable operation**
- **No Maintenance**
- **Quick installation**

Confident in the quality and reliability of Vortec products, we extend an unparalleled, 10-Year Warranty on the Vortex A/C.



All Vortex A/C models come as a complete system, and include a cold air ducting kit, cold end muffler, and 5-micron Auto-Drain compressed air filter.

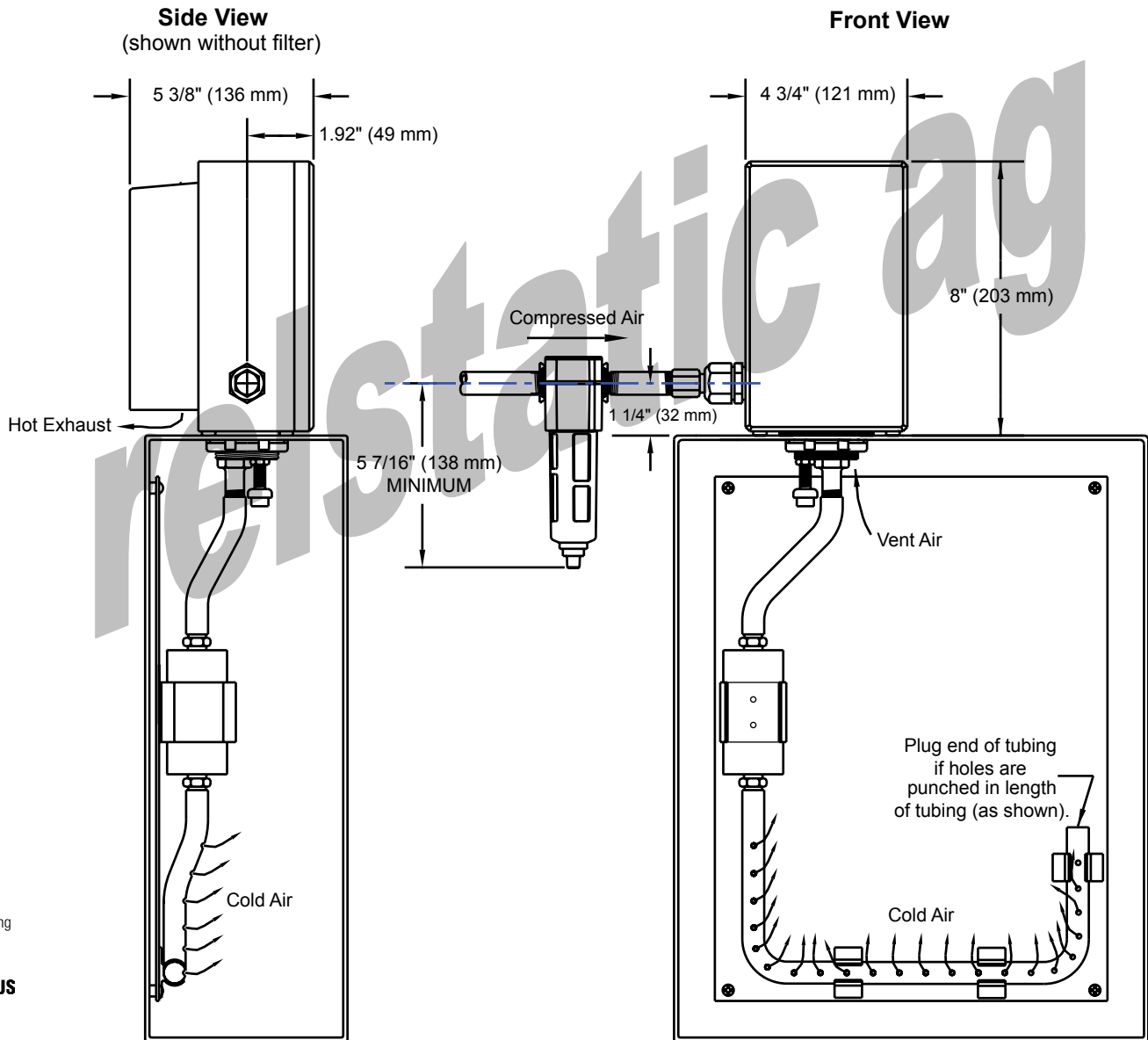
The Vortex A/C is the simple, compact, low-cost solution that is virtually maintenance-free.



Air conditioners require ongoing maintenance and are relatively expensive, large and difficult to install.



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Patent Pending



Vortex offers a complete line of Vortex Coolers for NEMA 12, 4 and 4X electrical cabinets. For assistance in sizing an appropriate Vortex A/C for

your enclosure or for more information on any of our cooling models, please call our technical service staff at the number below.

