

Airmasters Panel/ Cabinet Cooler

Panel Cooler or Cabinet Panel Cooler or Cabinet Cooler or Air Conditioner provide a low-cost method of both purging and cooling electrical and electronic control panels by using a stainless-steel **vortex tube** to create cold air from ordinary compressed air. There are virtually no moving parts. These units are compact and can be installed in minutes through a standard electrical knockout. These units are ideal for panels of different ratings.

Working

Filtered, compressed air enters the **panel cooler** through the **vortex tube** component. The air is split into two streams, one hot and one cold. The muffled hot air from the vortex tube is expelled through the top of the **panel cooler**. The cold air is directed into the enclosure through the cold air distribution hose. Hot air inside the enclosure rises and exits to atmosphere via the air exhaust at a slight positive pressure. The enclosure is both purged and cooled with clean air. No outside air enters the enclosure.

Advantages

- Low in cost
- Compact
- No CFC's
- Fast installation
- Stabilize enclosure temperature and humidity
- Virtually maintenance free (No Moving Parts)
- Mounts in a standard electrical knockout
- Stops heat damage and nuisance tripping
- Eliminates fans and filters
- Prevents dirt contamination by keeping enclosure at positive pressure
- Units applicable to all environments including high temperature to 200°F

Panel Cooler Selection

Selecting the right **Panel Cooler or Cabinet Panel Cooler or Cabinet Cooler or Air Conditioner** for your panel is very important, since the wrong model can waste lot of air and not be effective. To understand which model is suitable for your panel or application, a calculation for air consumption in CFM for your panel is required to be done. For this calculation, the size of the panel and heat generated inside the panel is to be known. According to this information, the appropriate model can be selected.

Panel Cooler are available with or without thermostat control. When constant cooling and a constant positive purge is required, we recommend the continuous operating version without the thermostat and **solenoid valve**. The cooling effect can be controlled by adding a regulator in line to reduce pressure for reduced cooling when it is not required and to conserve energy.

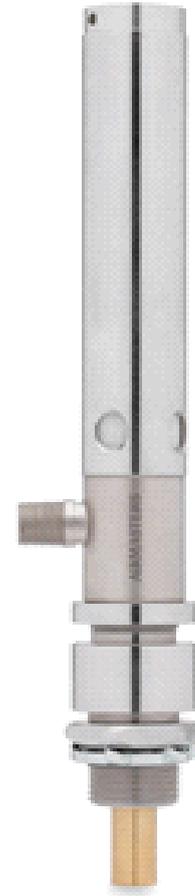
Systems utilizing a **thermostat** and **solenoid valve** save air by activating the **Panel Cooler** only when the internal temperature reaches a critical level. The adjustable thermostat is factory set at 28°C but can be readjusted on site. Thermostat and **solenoid valve** systems are recommended where the heat load can fluctuate (such as for frequency drives) and where a continual purge is not required. The thermostat and solenoid "package" can also be added at a later date to a continuous system.

Model Selection

Type	Model	Air Consumption (SCFM)	Capacity Watt (BTU/hr)	Sound level (dB(A))
IP 54	AIR-CC2-IP54	2	42 (145)	75
IP 54	AIR -CC4 -IP54	4	85 (290)	75
IP 54	AIR -CC 8 -IP54	8	170 (580)	75
IP 54	AIR -CC10 -IP54	10	214 (730)	78
IP 54	AIR -CC15 -IP54	15	322 (1100)	78
IP 54	AIR -CC25 -IP54	25	527 (1700)	78
IP 54	AAIR -CC30 -IP54	30	615 (2100)	78
IP 54	AIR -CC40 -IP54	40	849 (2900)	78
IP 54	AIR -CC 40 -IP54	50	1054 (3600)	81
IP 54	AIR -CC60 -IP54	60	1230 (4200)	81
IP 54	AIR -CC70 -IP54	70	1462 (5000)	81
IP 54	AIR -CC80 -IP54	80	1698 (5800)	81
IP 54	AIR -CC 110 -316L -IP54	10	214 (730)	75
IP 54	AIR -CC 115 -316L -IP54	15	322 (1100)	75
IP 54	AIR -CC 125 -316L -IP54	25	527 (1700)	78
IP 54	AIR -CC 130 -316L -IP54	30	615 (2100)	78
IP 54	AIR -CC 140 -316L -IP54	40	829(2900)	78
IP14	AIR -CC4 -IP14	4	85 (290)	75
IP14	AIR -CC 8 -IP14	8	170 (580)	75
IP14	AIR -CC10 -IP14	10	214 (730)	75
IP14	AIR -CC15 -IP 1 4	15	322 (1100)	75
IP14	AIR -CC25 -IP 1 4	25	527 (1700)	78
IP14	AIR -CC30 -IP 1 4	30	615 (2100)	78
IP14	AIR -CC40 -IP 1 4	40	849 (2900)	78
IP66	AIR -CC104 -IP66	4	85 (290)	75
IP66	AIR -CC108 -IP66	8	170 (580)	75
IP66	AAIR -CC 110 -IP66	10	214 (730)	75
IP66	AIR -CC 115 -IP66	15	322 (1100)	75
IP66	AIR -CC 125 -IP66	25	527 (1700)	78
IP66	AIR -CC 130 -IP66	30	615 (2100)	78
IP66	AAIR -CC 140 -IP66	40	849 (2900)	78
IP66	AIR -CC 110 -316L -IP66	10	85 (290)	75
IP66	AIR -CC 115 -316L -IP66	15	170 (580)	75
IP66	AIR -CC 115 -316L -IP66	25	322 (1100)	78
IP66	AIR -CC 130 -316L -IP66	30	527 (1700)	78
IP66	AIR -CC 1 4 0 -316L -IP66	40	849 (2900)	78

Applications of Panel Coolers

- Panel Cooling
- CNC System Cooling
- Set hot melt adhesives
- Cool welding horns on ultrasonic
- Cool moulded plastics
- Cool Electronic components
- Cool heat shrinks tubing
- Keep electronics free of condensation
- Programmable controllers
- System control cabinets
- Motor control centres
- Relay panels
- Environments where cooler panels are near Personnel
- Laser Housing Cooling



Accessories

- 1) Filter
- 2) Generator
- 3) Cold End Muffler
- 4) Hot End Muffler
- 5) Side Mount
- 6) Distribution Kit
- 7) Thermostat

