

HEAT EXCHANGER

COOL ZONE



ACME's HEAT EXCHANGER appropriately called 'Cool Zone', is an electro-mechanical air handling system, the first of its kind in the world to utilise ambient energy for thermal management of telecom shelters & electronic enclosures or any other enclosed unit.

It helps to maintain the temperature inside the telecom shelter with the help of ambient air-cooling. The heat exchanger comprises of two circulating fans and two radiator fans, operating on DC Voltage. It is designed to save power consumed by air conditioners for cooling the heat generated from electronic equipment inside the telecom shelter. Operating cost is very low as it consumes only 30% of the energy required to run a similar capacity air conditioner.

The 'Cool Zone' System is equipped with an intelligent Micro-controller, which controls the speed of circulating fans inside the shelter. It operates in closed loop cycle and does not use any filter. It provides clean environment inside the shelter thereby minimising the maintenance cost.

The system operates in variable cooling capacity mode based on the inside heat load/temperature of the shelter. The ambient temperature and interior temperature are monitored continuously by micro-controller. User can set the desired inside temperature of shelters and other variables for the optimum utilisation of the Heat Exchanger. The heat exchanger controller will generate an alarm if the inside temperature goes beyond the maximum allowable temperature.



The expert balancing act...



Technical Specifications*

Heat Exchanger – Cool Zone

Model	ATP/HE/350
Specific cooling capacity	350W/K
Air flow	1400 m ³ / hr
Operating voltage – fan	48V DC (44-56V)
Operating voltage - controller	48V DC
Operating temperature	-30°C to +35°C
Power consumption	500W
Filter	No filter required
Noise level	50 dB (A)*
Dimension	2250 x 600 x 320 mm (W x D x H)
Weight	90Kg approx.
Installation type	Ceiling mounting

* measured at 10m from the site

Features & Terminations

Front Panel Keys

Key Name	Description
Menu key	Used to enter into MENU.
Increment key (Inr.)	Used to increase the value of Any Menu Settable Parameter.
Decrement key (Dcr.)	Used to decrease the value of Any Menu Settable Parameter.
Run counter	Used to see the Cumulative Running Hours.

Front Panel Indicators

Parameter	Description
LCD	16 characters, 2 line green backlights – It shows the status of the system.
AC ON	RED LED – It glows when active cooling is ON.
High temperature alarm	RED LED – It glows when inside temperature goes beyond maximum set temperature.
Heater ON	RED LED – It glows when heater is ON.
Fan ON	RED LED – It glows when all the heat exchanger fans are ON.