

Air flow management

Increasingly often, the causes behind malfunctions or faults in electrical and electronic equipment housed in control panels or fitted as an integral part of a machine, are due to heat problems. In reality, the life span of components depends on the temperature and level of humidity inside the electrical cabinet. The normal recommended average operating temperature inside a cabinet is 35°C with relative humidity of no more than 60%.

Fandis offers a wide range of solutions for efficiently disposing of dissipated heat from electrical components suitable for different applications.

NATURAL CONVECTION



The use of exhaust filter ensures the passage of air and the removal of heat in a natural manner. This solution can be considered for dissipating low level of heat in dusty environments.

FORCED CONVECTION



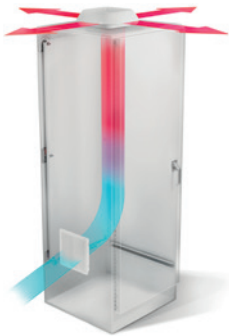
Forced ventilation is an inexpensive and efficient solution for preventing the formation of air pockets inside electrical cabinets. The best configuration includes fitting a fan filter to an exhaust filter.

The fan filter positioned at the bottom of the cabinet, takes in and filters air from the outside (standard air flow) while the exhaust filter at the top expels hot air. The pressure generated by the ventilation prevents unfiltered air from entering through holes or openings.



An inverted air flow version - reverse flow - is also available (fan filter at top and exhaust filter at bottom).

The system can be controlled by a thermostat that turns the fan on when high temperatures are detected.



Hot air can also be expelled from the roof of the cabinet if, for instance, the sides of the cabinet are covered by obstacles, walls or by the sides of other cabinets. In a perfect configuration, an exhaust filter is positioned at the bottom of the cabinet. The lower pressure generated by the roof unit sucks in air from the outside through the exhaust filter to enhance internal air flow and the dissipation of heat.



The use of a swivelling fan is an alternative solution for a better air circulation inside the electrical cabinet.

This fan distributes heat to reduce the temperature, cools local hot spots and disperses cold air emitted by cooling units.