

Unit description

The indoor vertical air conditioning units RACK COOLER is an effective management system of the Hot Spots in the data center, ensuring low energy consumption and usage possibilities even under extremely high loads for HIGH DENSITY rack 'up and over 40 kW/m² rack. The use of EC fan systems, featuring last-generation electronic-switching brushless motors, assures excellent performance and low consumption. The Rack Cooler Dual Fluid unit provides redundancy in cooling capacity also in emergency situations: to be connected to an external chiller for primary chilled water circuit, and to condensing unit i-HCAT for the secondary or back up circuit in direct expansion type. The condensing unit air-cooled type with axial-flow fans, fitted with INVERTER-DRIVEN HERMETIC SCROLL compressor for operation on R410A refrigerant, mounted on rubber vibration dampers, complete with oil charge, supplied with oil separator to ensure correct lubrication even at minimum speed, and fitted with thermal protector; available on BASIC versions and LT for low external temperature.

Versions

- **ENCLOSURE** - Basic, ENCLOSURE air flow configuration
- **IN-ROW** - Basic, IN-ROW air flow configuration

Features

- **EFFICIENCY**
The unit combines the efficiency of use of last EC fans generation and a direct expansion system with inverter compressor (fitted in condensing unit) allowing a great EER value. Thanks to the adoption of inverter DC brushless compressors, these units can reduce by 50% consumptions at part load, if compared to a traditional ON/OFF compressor. This is made possible also thanks to the advantages of variable air flow enabled by EC fans.
- **FLEXIBILITY**
The InRow and Enclosure versions are both arranged with hydraulic/refrigerant connections and electric supply from top or bottom side, so as to allow a quick and easy installation in any condition, whether or not foreseen the presence of a raised floor.
- **IDM - INTEGRATED DYNAMIC MANAGEMENT OF TEMPERATURE**
The units are supplied with a new management algorithm called IDM- INTEGRAL DYNAMIC MANAGEMENT able to prevent stratification of temperature within the rack through the use of 4 sensors (2 on the suction and 2 on the outlet) integrated and independent on the basis the real load in the single stratified BLADE work to optimize the ventilation only when required so as to maximize energy benefits. The IDM also provides the

optimal management of the outlet temperatures of the treated integrating the various resources in a DYNAMIC and INTELLIGENT way.

- MODULARITY

These units, with their characteristics of dimensional standardization based on the rack, are ideal for all those datacentres where SCALABILITY of the system is a strategic factor.

- COMPARTIZATION

Perfect integration with systems that minimize the mixing hot and cold air between the aisles and that emphasize the efficiency of such systems.