

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. In hydronic version where the cooling is ensured by the use of an external chiller. The use of EC fan systems, featuring last-generation electronic-switching brushless motors, assures excellent performance and low consumption. Available as standard with the dynamic management of N +1 EC fans to optimize consumption and redundancy of the cooling system. These individual units to be positioned between the racks in the row so as to act locally in order to dissipate the load of servers.

Versions

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

Features

- **EFFICIENCY**
The unit combines the efficiency of a hydronic system for the extraction of heat with the use of last generation fans EC electronic commutated , to obtain values of EER more than 100. The reduction of the temperature of the air exhausted allows the use of water very high cooling 14-20° C by the Rack Cooler that, if on the one hand prevents unpleasant phenomena of condensation (SHR = 1), will allow the other use of only the external system in chillers Freecooling Mitsubishi Electric Hydronics & IT Cooling Systems S.p.A.
- **FLEXIBILITY**
The InRow and Enclosure versions are both arranged with hydraulics 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.
- **REDUNDANCY**
Both the Enclosure and InRow are developed to ensure maximum RELIABILITY 'the system by total REDUNDANCY cooling system guaranteed by the new version DUAL COIL dual power supply, dual battery raffreddamento and double regulating valve completely independent to ensure 100 % back up in the air conditioning system. This allows you to connect your new versionbe DUAL COIL from one side to the primary system FREECOOLING (Circuit 1) and the other to a chiller chilled water in total Back up.
- **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.
- **INTEGRATION**
INTEGRATION with all the HYDRONIC products in the Mitsubishi Electric Hydronics & IT Cooling Systems S.p.A. range via supervision software.