CLOSE CONTROL AIR CONDITIONERS











NEW GENERATION ELECTRONIC CONTROL SYSTEM

The SURVEY³ controller is conceived and designed for a simple and intuitive real-time management and monitoring of all operating cycles of the units, with specific features dedicated to energy savings and a predictive safety systems designed to prevent unwanted shut-down failures.





THE INTELLIGENT LOCAL NETWORK

The innovative SMART NET system allows the concept of local network to be revolutionized. Taking advantage of the unit's modulation capabilities, the SMART NET system makes it possible to actively share the workload among all the units in the local network, that directly translates into an energy saving of up to 60% compared to redundant-type networks (n+1 or n+n).





HIGH PERFORMANCE, LOW POWER CONSUMPTION ELECTRONIC FANS

The units of the close control air conditioning range are equipped with state-of-the-art electronic fans which allow very high performance levels to be achieved with minimum energy and acoustic impact.



POWERVALVE

CONTROL VALVE WITH FLOW RATE AND ENERGY ELECTRONIC MONITORING

Thanks to the electronic control of the water flow rate and coil inlet and outlet temperatures, the POWER VALVE system allows the monitoring of the cooling circuit performance in real time and the automatic balancing of the water circuit, regardless of the water circuit pressure, without the involvement of external personnel.

TECHNOLOGICAL INNOVATIONS



ELECTRONIC EXPANSION VALVE

Thanks to the electronic expansion valve's (EEV) advanced system of adaptive adjustment, it is possible to ensure the best cooling circuit operation and to increase the cooling circuit energy efficiency compared to a system provided with a mechanical thermostatic expansion valve (TEV).



DC COMPRESSOR WITH INVERTER REGULATION

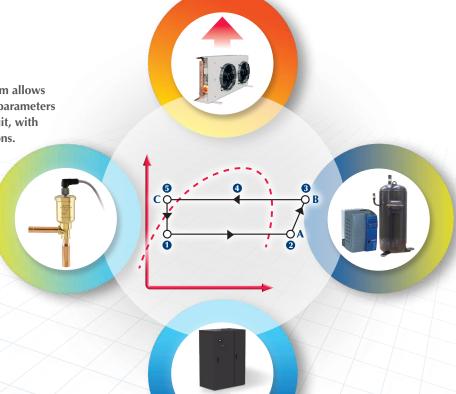
The brushless DC compressor allow a wide modulation, between 20% and 100%, of the delivered cooling capacity of the units. By optimizing the working conditions and efficiency, it is possible to reduce the system annual energy consumption and energy efficiency ratio (EER), compared to a system with a fixed speed compressor.



COOLING CIRCUIT ADVANCED MANAGEMENT SYSTEM

The SMART COOL innovative control system allows the display and monitoring of the working parameters of the whole direct expansion cooling circuit, with more than 10 different active safety functions.

The SMART COOL system makes it possible to significantly simplify all the installation and maintenance procedures. Using tools to check the conditions of the cooling circuit will be no longer necessary; technicians will be able to easily access all the operating conditions by simply pressing a button on the display or by the supervision systems as well as building management systems (BMS).



CUSTOMISED VERSIONS

CLOSE CONTROL AIR CONDITIONERS FOR CEILING INSTALLATION

Available with direct expansion circuit for remote condensing unit and with chilled water circuit, for cooling capabilities from 5 to 20 kW.



CONSOLE CLOSE CONTROL AIR CONDITIONERS

Available with direct expansion circuit for remote air or in-built water condensers and with chilled water circuit, for cooling capabilities up to 15 kW.



AIR COOLED CONDENSERS AND DRY COOLERS

TECNAIR LV is able to offer a wide range of air cooled condensers and dry coolers.

- Range of air cooled condensers with capabilities from 4.6 to 2340 kW
- Range of dry coolers with capabilities from 11 to 2333 kW





Close control air conditioners for large data centers

GENERAL FEATURES

- A high ratio of delivered cooling capacity to footprint.
- Improved air distribution in the raised floor.
- Very low fan energy consumption.

Direct expansion:

Cooling capacity: from 40 to 100 kW Airflow: from 9.000 to 20.000 m³/h

Chilled water:

Cooling capacity: from 40 to 150 kW Airflow: from 9.000 to 40.000 m³/h

Free Cooling and Two Sources range available



series

Close control air conditioners

GENERAL FEATURES

- Close control of temperature and humidity.
- Very high EER (Energy Efficiency Ratio), low CO₂ emissions into the environment and low operating costs.
- High flexibility of use and a wide range of accessories.

Direct expansion:

Cooling capacity: from 6 to 100 kW Airflow: from 2.000 to 21.000 m^3/h

Chilled water:

Cooling capacity: from 10 to 200 kW Airflow: from 2.000 to 35.000 m³/h

Free Cooling and Two Sources range available



Close control air conditioners for "in row" installation

GENERAL FEATURES

- Air flow distribution as close as possible to servers.
- Rear intake from the hot aisle and front supply to the cold aisle.
- Front and rear accessibility for easy maintenance.
 Cooling, electric and water top/bottom connections.

Direct expansion:

Dimension: 300 and 600 mm wide models Cooling capacity: from 10 to 40 kW Airflow: from 3.000 to 8.000 m³/h

Chilled water:

Dimension: 300 and 600 mm wide models Cooling capacity: from 20 to 35 kW Airflow: from 6.000 to 9.000 m³/h

Free Cooling and Two Sources range available







Close control air conditioners to be installed below the raised floor

GENERAL FEATURES

- Zero data center floor space occupied.
- Very high EER (Energy Efficiency Ratio) thanks to the optimized air flow.
- Fully customizable according the data center characteristics.

Chilled water:

Cooling capacity: from 10 to 200 kW Airflow: from 2.000 to 40.000 m³/h





Close control air conditioners to be installed on top of the racks

GENERAL FEATURES

- Zero data center floor space occupied.
- Very high EER (Energy Efficiency Ratio) thanks to the optimized air flow.
- Fully compatible with the racks present in the market and suitable for cold or hot-aisle contained systems.

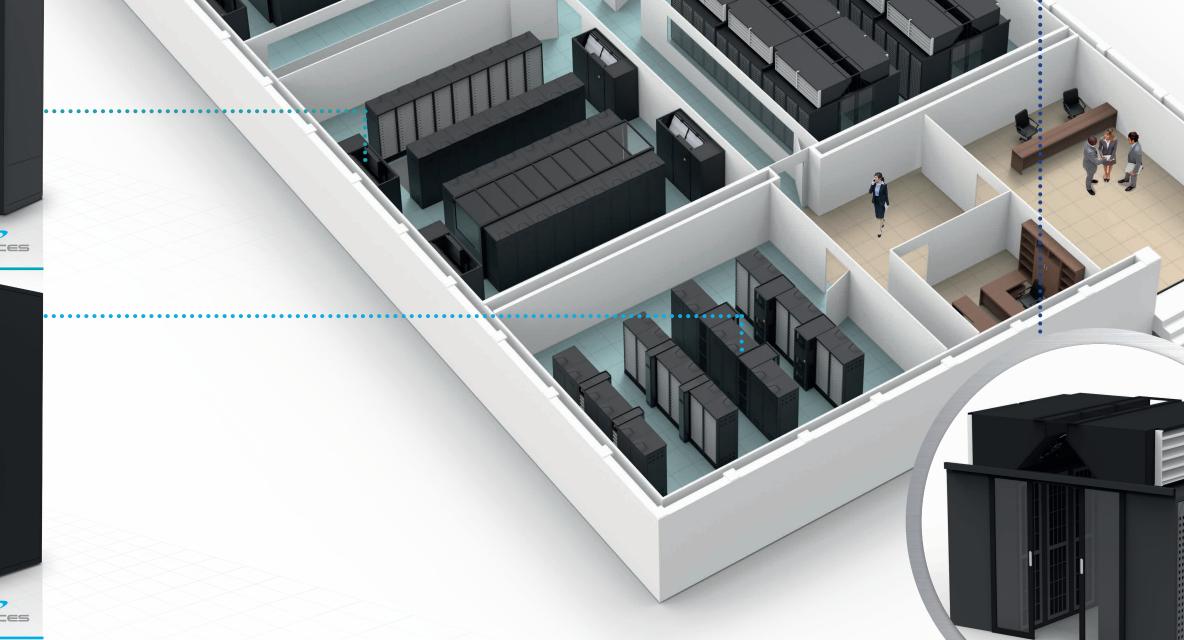
Direct expansion:

Cooling capacity: 50 kW Airflow: 10.500 m³/h

Chilled water:

Cooling capacity: 50 kW Airflow: 10.500 m³/h







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