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**Press release**

# COMPLETE SOLUTION FOR DATA CENTERS ON SHOW IN LONDON

*Humidity control and energy saving together for the first time in datacenters: the new humiSonic family ultrasonic humidifiers*

Brugine (Padova), 26 October 2015

At DatacenterDynamics Converged, to be held on 18 and 19 November, CAREL will be presenting its complete solution for datacentres, with the focus on efficiency and energy saving both on each individual device and across the entire system.
Over the last 40 years, CAREL has been investing in research and development so as to offer highly-efficient technology and increase its specific knowledge of datacentre applications, with the objective of maximising the benefits provided by the entire solution. The result is a complete range centred around energy saving and efficiency.

One of the key technologies that CAREL has introduced into this market is the use of **electronic expansion valves (EEV)** to control the refrigerant circuit. This maximises performance in all conditions by increasing cooling unit efficiency. In addition, the wide modulation capacity of electronic expansion valves allows lower condensing pressures and, consequently, a reduction in power consumption at certain outside temperatures (overnight or during colder months). While in warmer periods the valve ensures savings of around 4/5%, when taking into account the reduction in power consumption, **savings over the entire year are as high as 15%**.

Another highly important aspect is the control system for DC compressors. **The CAREL inverter** can control compressors on the latest Computer Room Air Conditioners (CRAC), with a direct expansion system that modulates cooling capacity so as to deliver the right air temperature to meet requirements. The inverter also helps provide redundancy: having units operating at 75% means there is reserve cooling capacity available if a problem occurs on another unit. This means the units operate most of the time at part load, bringing **energy savings of up to 25/30%**.

The CAREL solution for datacentres is enhanced and completed by the new **humiSonic direct ultrasonic humidifier**. Very low energy consumption (less than 80 W per litre of atomised water) makes humiSonic the ideal solution for datacentres and all applications where humidity control can be managed exploiting part of the sensible heat generated inside the controlled environment. These low running costs ensure humiSonic a return on investment is just a few months.
By running humiSonic on demineralised water, operation of the piezoelectric transducers is guaranteed for 10,000 hours. This ensures service continuity in critical applications. Consequently, routine maintenance is also drastically reduced.
humiSonic direct is a single solution comprising both the control panel/power supply and the air humidity probe. It is a compact stand-alone system that is easy to install.
It can also be easily integrated into a BMS via an external signal (for example 0 to 10 V, 4 to 20 mA) or via a serial connection using the Modbus protocol.

DatacenterDynamics Converged
18-19 November 2015
ExCeL, London - Booth 324

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**About CAREL INDUSTRIES S.p.A.**
CAREL is one of the world leaders in control solutions for air-conditioning, refrigeration and heating, and systems for humidification and evaporative cooling. Our products are designed to bring energy savings and reduce the environmental impact of equipment and systems. Our solutions are used in commercial, industrial and residential applications. CAREL has 19 fully-owned subsidiaries and 7 production sites, as well as partners and distributors in a further 75 countries.
For further information, go to www.carel.com