

# CASE STUDY VODACOM SITE



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Pre-cooling System “Smart Cooling™” on Vodacom site in Pretoria - South Africa cooling Equipment, reduced electric energy consumption by 11% and increased cooling capacity by 22% on average, and COP increased by 39%.”

### CUSTOMER

Vodacom is the leading cellular network in South Africa with an estimated market share of 58% and more than 103 million customers across Africa. From its roots in South Africa, Vodacom has grown its operations to include networks in Tanzania, the Democratic Republic of the Congo, Mozambique, and Lesotho, and provides business services to customers in more than 32 African countries. Vodacom provides coverage to Mount Kilimanjaro and Mount Everest, the highest point in the world.

### CHALLENGE

In 1993 was awarded a license to operate a GSM cellular network in South Africa. Vodacom is majority owned by Vodafone (60.5% holding), one of the world's largest communications companies by revenue, and is listed on the JSE in South Africa. In 2019 completed largest BEE transaction in telecommunications sector. 2 Years ago Vodacom was equipped with “Smart Cooling™” system and since then has ascertained its effectiveness.

It was important to Vodacom to increase COP/ EER of the chillers.

### SOLUTION

“Smart Cooling™” continues to equip new chillers with the new generation adiabatic pre-cooling chiller booster system PRO 10.

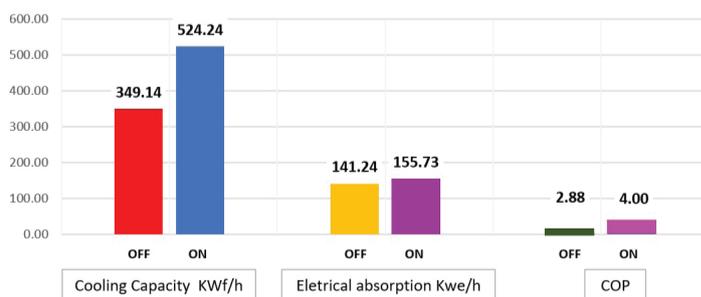
Data center YORK YLAA0517 chiller with a total cooling capacity of 519 kW have been equipped, which began providing energy efficiency improvements to Vodacom site in Pretoria - South Africa. “Smart Cooling™” adiabatic chiller booster system PRO 10 will boost Vodafone data center cooling equipment efficiency. That means more cooling power ensured and minimized electric energy consumption.

### RESULTS

Vodacom site in Pretoria test report indicates that, after the installation of “Smart Cooling™”, chillers can produce noticeably more cooling capacity (the average increase by 22%) and the electrical energy consumption of equipment considerably decreases annually (by 11% on average) at 35°C. Additionally, cooling equipment operates under the circumstances of normal load, the operating cycle of compressors is shorter and the equipment does not become overloaded. Condensers are 100% protected.



Comparison day 18/10/2019 1 hr 'Smart Cooling™' OFF 1 hr ON



COOLING CAPACITY INCREASED BY

↑ 22%



ELECTRIC ENERGY CONSUMPTION REDUCED BY

↓ 11%

Intelligent Adiabatic pre-cooling system “Smart Cooling™” is state of the art technology ensuring excellent energy saving results.

- Modular system
- Suitable for all types of dry coolers and chillers
- Easy and fast installation
- Certified system and approved by major cooling equipment manufactures
- Minimal maintenance

