S19 HOTEL | AL JADAF, DUBAI, UAE

S19 Hotel

DAIKIN air-cooled chillers

Chiller electricity use fell 19.20% with GACS adiabatic cooling system

Measured performance from 1 DAIKIN chiller upgraded with the GACS adiabatic cooling system

21 %	8.25°C	1
MEASURED ENERGY REDUCTION	TEMPERATURE DROP BELOW AMBIENT	DAIKIN CHILLER UPGRADED



CUSTOMER

The S19 Hotel operates Daikin chillers at its Al Jadaf, Dubai site.

CHALLENGE

Reduce condenser inlet-air temperature and chiller electricity use during hot-weather operation.

GACS DESCRIPTION

Designed and manufactured in the UAE, GACS combines condenser protection with high-pressure evaporative pre-cooling, multi-stage water treatment, water recirculation and intelligent PLC control. It cools air entering the condenser coils to approximately 2°C above the ambient wet-bulb temperature.

TEST INSTRUMENTS USED DURING THE TEST

BTU Meter	Temperature & Humidity Reader	Eniscope (Energy Meter)
		

MEASURED PERFORMANCE

ONE Daikin chiller upgraded with GACS used 21% less electricity.

During GACS operation, average condenser inlet air was 24.40°C compared with 32.65°C average ambient air, a 8.25°C difference.