

GOING ALL DC AT OFF-GRID BTS SITE

A Telecom operator wanted to reduce energy consumption for temporary sites in the Italian mountains. In cooperation with Dantherm, a trial installation using DC Split Air Conditioning was set in motion. 7 months into the trial, the performance data are showing an energy use for cooling below 10 kWh/day for more than 50 % of the ongoing trial period.

The sites were located off-grid and cooled by AC split air conditioners powered by battery banks/AC diesel generators. An existing test site was running a long-term savings test with a DC diesel generator.

The Dantherm consultant proposed to replace the energy-intensive AC split air conditioners with DC Split air conditioners. This would create an all-DC setup: avoid the high inrush current, increase battery backup time and eliminate the need for the very large AC-DC inverter previously needed for the setup.

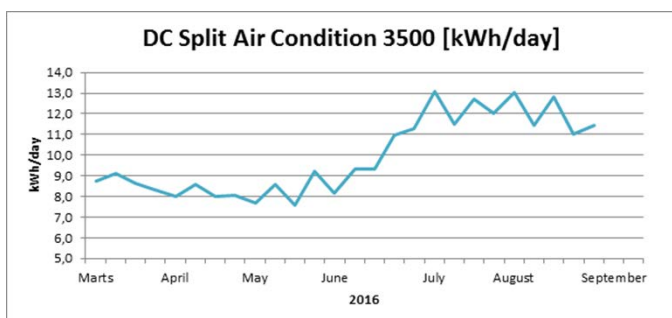


Dantherm DC Split Air Conditioning: highly energy-efficient, reliable off-grid cooling

No power loss in conversion	Purely DC-powered – no need for an inverter
Stable operation in case of power outage	Designed to run on battery backup
Lower CAPEX	No need for expensive inverter
Low power consumption	Capacity-controlled operation
Increased safety	Closed loop cooling
Minimum maintenance	High-quality compressor and fans
Long service life	+10 years
Cost-efficient installation	The Dantherm DC split unit matches most standard split AC air conditioners in size. Therefore, the existing AC split air conditioners could simply be removed and replaced by the new units using existing bores.

Energy use below 10 kWh per day

Evident from the performance data below, the power consumption of the DC Split Air Conditioner is very low compared to conventional AC split air conditioners – even during the hottest months of the year for this region. Most interesting however, is the power consumption during the cooler months. From March-June for instance, the power consumption is below 10 kWh/day, which makes a significant difference in creating very high energy savings on an annual basis.



Learn more about Dantherm's true DC air conditioning solutions:

www.dantherm.com