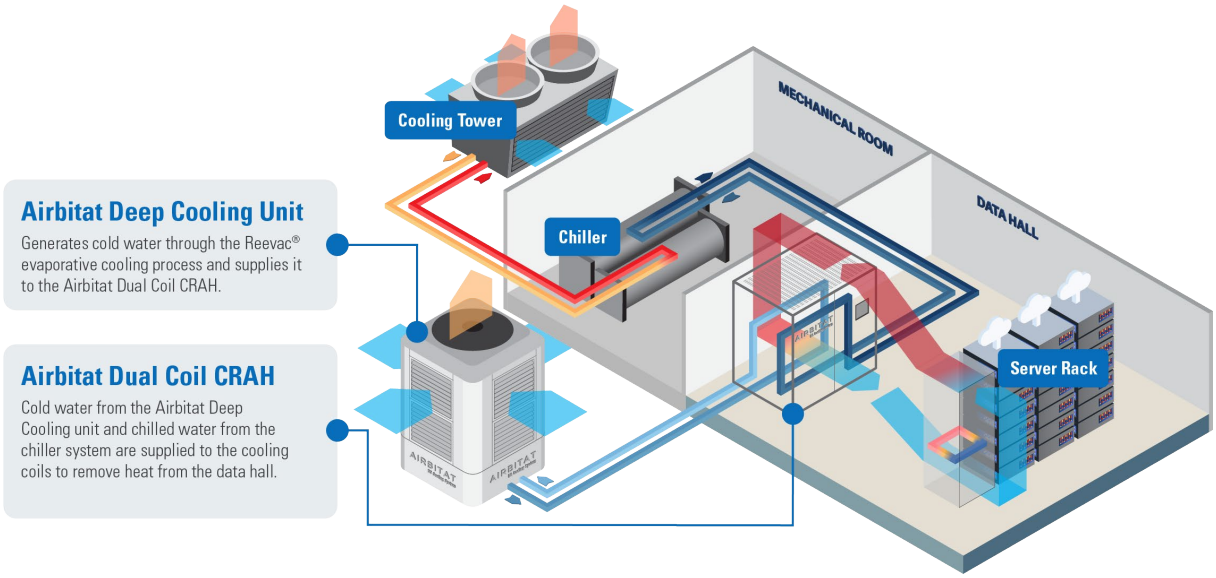
Annex A

Factsheet - How the Airbitat DC Cooling System works



In a data centre, 90% of the heat load is concentrated in the server room. A connected chiller and cooling tower system is typically used to cool the server room.

The Airbitat DC Cooling System, which comprises an indoor Dual Coil Computer Room Air Handler (CRAH) and an outdoor Deep Cooling Unit, is integrated with the chiller and cooling tower system.

1. Through the Reevac® evaporative cooling process, the Deep Cooling Unit generates cold water which is supplied to the first coil in the Dual Coil CRAH. In hot and humid climates, water temperature can be as low as 26°C.
2. The Dual Coil CRAH then pre-cools the hot return air (approximately 35°C) from the data hall using the first coil which is supplied with cold water from the Deep Cooling Unit. This reduces over 40% of the heat load and lowers the air temperature to approximately 29°C.
3. The partially cooled air is channelled to the second coil which is powered by the chiller and cooling tower system. The air is further cooled to the final temperature of 22°C, which is supplied to the data hall.
4. Hot return water from the Dual Coil CRAH is then re-circulated to the Deep Cooling Unit for cold water regeneration.