

# Data Center

## Efficient Cooling Solutions

### AL-KO DATA AIRRAY

CRAH-Unit (Computer Room Air Handler)

To ensure that your data center is cooled as efficient as possible without compromising reliability, ASHRAE has published a recommendation for the air temperature at the server inlet. ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers) is a US association specializing in building climate. The long-established association, founded in 1894, provides internationally recognized guidelines on how warm/cold, humid/dry, etc., it should be in buildings, including data centers.

Efficiency plays a major role in data centers. Here, the EER and AER values serve as a comparison in the market. Also important is the cooling capacity per square meter.

- Main Functions:
  - Damper
  - Heat Exchanger
  - Filter
  - EC Fan
- Performance Range from 10–270 kW Cooling Capacity
- Five Unit Configurations:
  - Upflow
  - Raised Floor One-Sided
  - Raised Floor All-Sided
  - Downflow
  - Downflow as High Version



#### Energy Efficiency Ratio (EER)

$$\text{EER} = \frac{\text{Total Cooling Capacity}}{\text{Power Consumption}}$$

#### Airflow Efficiency Ratio (AER)

$$\text{AER} = \frac{\text{Fan Power Consumption}}{\text{Airflow}}$$

## Your Advantages



Maximum cooling capacity on minimal footprint



In-house developed control technology for optimal and energy-efficient regulation based on supply air, return air, room air, or server inlet temperature



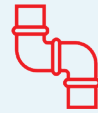
Highly efficient air guidance through optimal housing design and latest generation fans



Available with integrated and external fan unit



Efficient fans reduce power consumption and ensure highest AER values



Optimized water flow through pressure-independent Energy Valve



Compact design and simplified transport and installation of the chilled water air conditioning unit



Active and passive unit redundancy achievable through software functions



Highest EER values through the largest possible, hydrophilically coated heat exchanger and filter surfaces



Optimized for transport by container or truck (up to 12 units)



AL-KO DATA AIRRAY  
Upflow



AL-KO DATA AIRRAY  
Downflow



AL-KO DATA AIRRAY  
Downflow High Version



AL-KO DATA AIRRAY  
Downflow Raised Floor

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Learn more:

