

Menerga wins the German Data Center Award 2019.

At this year's German Data Center Award ceremony, Menerga won against seven other participants in the category "Data Center Air Conditioning and Cooling" and was awarded first place by the expert jury.

On 11 April, the German Data Center Award 2019 was presented. A jury of experts consisting of representatives from research, industry and the press reviewed and evaluated numerous submissions in a total of five categories. In category two - "Data Center Air Conditioning and Cooling" - Menerga GmbH was able to prevail against its seven competitors. The submission with the title "Recirculating air cooling unit with evaporative cooling and adsorption cooling modules" convinced the expert jury and was awarded with the first place.

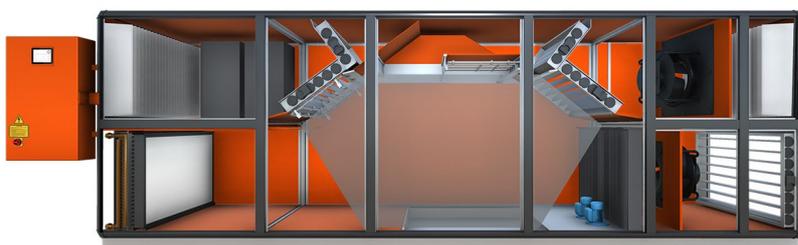
The thermally driven cooling technology **AdiabaticDX^{carbonfree}** based on the Adconair countercurrent heat exchanger works with indirect, adiabatic evaporative cooling and integrated adsorption cooling modules. The award-winning solution is a recirculating air cooling unit that can be used for cooling data centers. In order to ensure the required supply air temperatures even at very high outdoor air humidities, the adsorption cooling modules are activated as required in addition to the indirect adiabatic evaporative cooling.

The cooling energy provided by the physical process of adsorption is used in a finned heat exchanger for cooling the supply air. The cooling capacity of the adsorption cooling modules is sufficient to reach up to 20 °C supply air temperature.

While one adsorption cooling module provides cooling energy for the supply air cooling, the second module is regenerated using thermal energy from a temperature level of 55 °C. The necessary recooling of the adsorption cooling modules takes place internally using the adiabatic evaporative cooling, an additional external recooling unit is not required. The simple design of the adsorption cooling modules without moving parts makes this type of additional cooling much more reliable than a refrigeration system.

The aim of this project was to develop a highly efficient recirculating air cooling unit for data centers which, compared to a conventional, electrically driven refrigeration system, does not cause electrical peaks at summer peak loads and can nevertheless ensure the required supply air temperature. Furthermore, the use of refrigerants with a GWP greater than 0 should be avoided and no or only a minimal use of electrical energy should be required for the operation of the additional cooling system.

This sustainable air-conditioning solution provides the planner with a new degree of freedom for planning "green" data centers. In addition to dispensing with environmentally hazardous working materials, such as F-gases or refrigeration machine oils, the use of heat as a drive source for additional cooling offers the possibility of planning new air-conditioning concepts using district and local heat or waste heat from cogeneration units or emergency power units.



The thermally driven cooling technology AdiabaticDX^{carbonfree} based on the Adconair heat recovery system by Menerga.



*The desired trophy of the German Data Center Award 2019.
Pictures: Menerga GmbH*

In case of publication, please submit one copy to us of each of the published items for our archives.

In case you do not want to receive any further information from Menerga, please send an e-mail to stefanie.kokott@menerga.com or phone us at +49 (0) 208-9981 120

About Menerga

Menerga develops and manufactures innovative ventilation and air conditioning technology for diverse fields of application. We can safely claim that our technology is leading in all areas, and that we set the bench mark for efficiency and effectiveness. Our philosophy, "Creating a good indoor climate – through **Minimal ENERGY Application**," is something at which we have succeeded every single day since the company was founded in 1980.

Menerga annual sales earned by the end of the most recent fiscal year were approx. €48 million, and the company employed around 410 employees in Germany and approx. 650 employees worldwide during this time.

Since 2013 Menerga has been part of the internationally successful Systemair Group, which is a leading company in ventilation and air conditioning technology.

For more information on Menerga, please consult www.menerga.com

Contact

Menerga GmbH
Stefanie Kokott
Alexanderstrasse 69
45472 Mülheim an der Ruhr
Germany

Tel.: +49 208 99 81 - 120
Fax: +49 208 99 81 - 110
stefanie.kokott@menerga.com
www.menerga.com