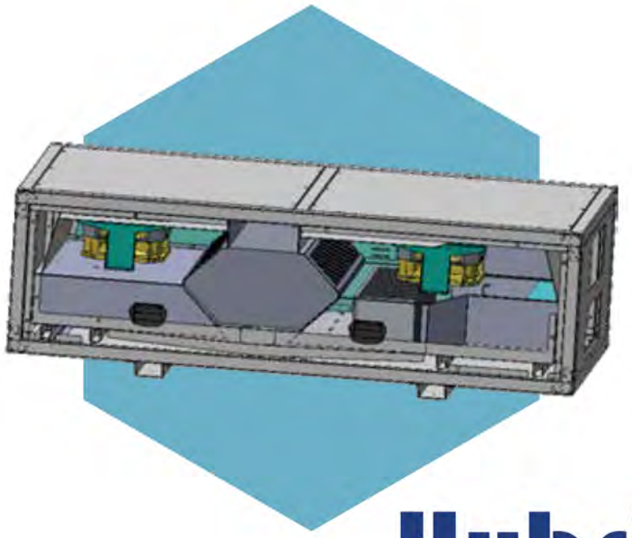
%100
Fresh Air A/C Unit

AIOLOS
ADVANCED AIR TECHNOLOGIES

AIOLOS®
ADVANCED AIR TECHNOLOGIES
Adiabatic - | Cooling

HybriCool® Flat

Indirect Adiabatic Cooling A/C Unit



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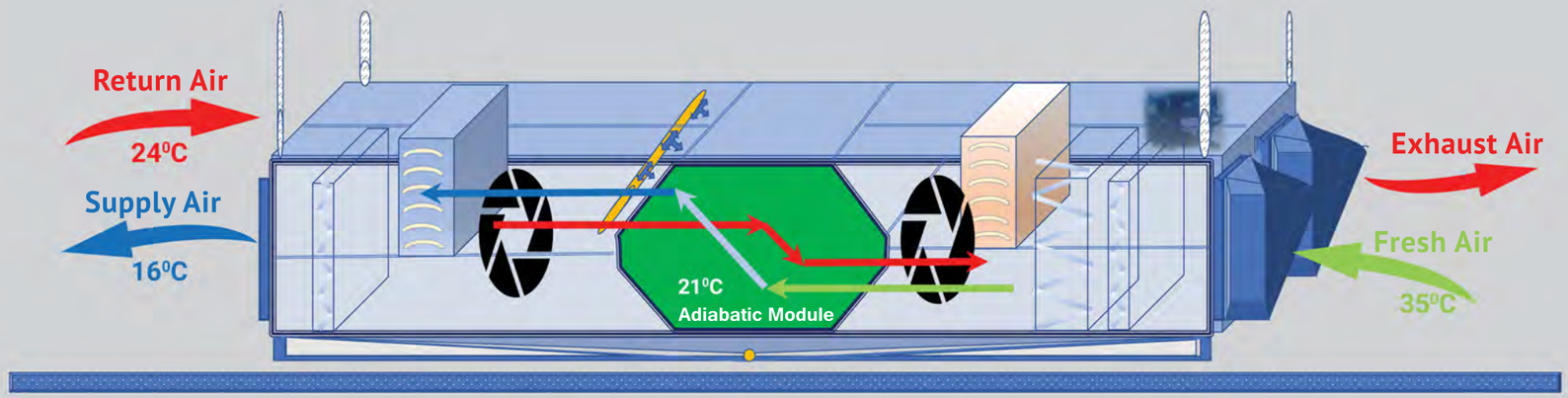

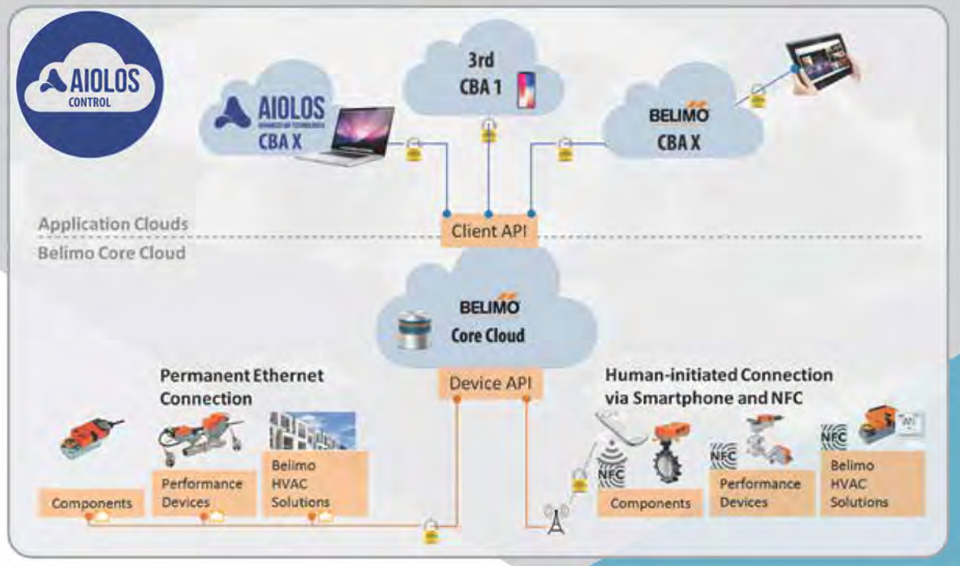

Adiabatic Cooling Principle

Evaporative cooling (EC) technology is based on heat and mass between air and cooling water. Direct evaporative cooling (DEC) relies on mechanical and thermal contact between air and water, whereas indirect evaporative cooling (IEC) is heat and mass transfer between two air streams separeted by a heat transfer surface where only air is cooled, and a wet surface where both air and water are cooled. These two air streams do not mix.

The HybriCool-Flat Indirect Evaporative Cooling Air Conditioning Unit cools the supply air in Hybrid Mode to support the design requirements. With the help of Indirect Evaporative Cooling (IEC), as a pre-cooler, the supply air is cooled down to a certain temperature and with the integrated DX refrigerant cooling, the additional cooling requirement is met to obtain the required cooling capacity. Thanks to demand-controlled DX cooling, the compressor only runs when needed.

HybriCool Flat Application Areas:

- Restaurants
- Cafes
- Offices
- Malls
- Schools

- In all indoor places that need fresh air HybriCool Flat offers you comfort with energy efficient air conditioning.

AIOLOS Regelung | Control
≥ 75% AIOLOS WRG | HRV
AIOLOS Filter Technology
AIOLOS ADVANCED AIR TECHNOLOGIES Adiabatic -|Cooling

HybriCool Flat

- %100 Fresh Air
- Adiabatic Cooling
- High efficiency counterflow heat recovery
- Web-based remote control
- Free Cooling
- Design without external unit with integrated compressor, condenser and evaporator
- High efficiency EC fans
- G2 (ISO Coarse) + F7 (ISO ePM1) filter

Optional
- Water heater coil
- Water cooler coil
- Electric heater
- Water cooled condenser
- Room temperature control unit

HybriCool Flat Technical Data

Model	HF-6	HF-12	HF-20	HF-30	HF-40	HF-50
Air Volume (m^3/h)	600	1200	2000	3000	4000	5000
External Stat. Presssure (Pa) @ Nominal Air Volume	180	180	350	440	840	460
EER Adiabatic Modul (kW/kW)	15,4	15,4	9,5	12,3	9,4	7,0
EER Adiabatic + DX (kW/kW)	5,4	5,1	6,1	8,1	6,8	6,2
Adiabatic Module Cooling Operation						
Air Inlet Temp. (^0C)	35	35	35	35	35	35
Air Outlet Temp. (^0C)	20,3	20,3	21,1	21,43	21,9	22,3
Cooling Capacity (kW)	3,0	6,1	9,6	14,1	18,1	21,9
Water Consumption (l/h)	2	3	6	9	12	14
Water Supply (l/h)	5	9	9	9	12	15
Heat Recovery Heat Exchanger Winter Operation						
Air Inlet Temp. (^0C)	-3	-3	-3	-3	-3	-3
Air Outlet Temp. (^0C)	19,2	19	18,8	18,1	17,4	16,7
HR Capacity (kW)	4,2	8,8	13,9	20,3	26,3	31,9
HR Heat Exchanger Eff. (%)	86%	86%	82%	80%	81%	79%
Filter						
Pre Filter	G2 (ISO Coarse)					
Final Filter	F7 Kompakt (ISO ePM1)					
Integrated DX Cooling						
Compresssor Type	Rotary	Rotary	Rotary	Scroll	Scroll	Scroll
Refrigerant	R 410a	R 410a	R 410a	R 410a	R 410a	R 410a
Cooling Capacity (kW)	2,7	5,4	8,0	11,8	15,9	21,3
Air Outlet Temp. (^0C)	15,2	15,4	16,4	16,7	17,0	17,0
Condenser Evap. Cooling Water Supply (l/h)	3	6	9	15	18	21
Electrical Data						
Fan Motor Power (kW)	0,17 x 2	0,17 x 4	0,78 x 2	1,3 x 2	2,5 x 2	2,5 x 2
Fan Power Consumption @ 0 Pa (kW)	0,20	0,40	1,01	1,15	1,93	3,15
Compressor Power Consump. (kW)	0,88	1,84	1,88	2,03	3,05	3,77
Power Supply	1~200-240V 50/60Hz			3~380-460V 50/60Hz		
Control	Backnet IP					
Dimensions						
Width x Length x Height (mm)	860x1700x500	1500x1700x500	1500x2000x700	1500x2400x800	1500x2400x900	1500x2400x1000

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Saray Mah. Dr. Adnan Büyükdeniz Cad. Cessas Plaza
2. Blok Kat: 10 No: 4/21 34768 Ümraniye / İstanbul
Tel : +90 216 250 32 72
Faks : +90 216 250 32 32
E-mail: info@aiolosair.com
www.aiolosair.com