

DISPLACEMENT FREE COOLING



DFC 450
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The Dantherm DFC 450 is a slim passive cooling unit utilising the displacement free air cooling technology. The unit is designed to remove excess heat from small rooms with electronic equipment.

The DFC 450 is the perfect choice when installed in a small room for electronic equipment with stagnant air. Because of the displacement technology, the DFC is even more energy efficient than a traditional free cooling unit.

Due to a very low air flow and fan speed, the DFC operates with a very low noise level.

Read more about the displacement cooling efficiency and function in the technology section on our website. In cases without stagnant air, we recommend the Dantherm Flexibox series.

FEATURES AND BENEFITS

Energy efficiency and environment

- Total heat management, where the energy efficient cooling is first choice. Only when free cooling is not sufficient, the air conditioning will be activated.
- F5 displacement bag filter: fine filtered air is introduced to the room. Helps keep the room clean from unwanted particles.
- Quick overview of status and alarms via the LCD display. Status is displayed in clear text: gives efficient service. No laptop is needed.
- Timer function: easily activated for service personnel. Will as safety go back to normal operation after 20 minutes.
- Quick and quality-assured service with full self-test.
- Security of operation with built-in filter monitor that provides an alarm signal and enables you to plan service visits.

Cabinet & Controller

- Compact cabinet for indoor mounting
- Constructed of sheet metal (Aluzinc AZ150)
- ACUE 3000 – 48 VDC Controller, wall-mounted (see datasheet)
- TKS 3000A - 230 V AC Controller, wall-mounted (see datasheet)

Optional features

- Outdoor temperature sensor to be used with active cooling unit
- F6 bag filter.

Optimal displacement cooling function is obtained when the following parameters are in place:

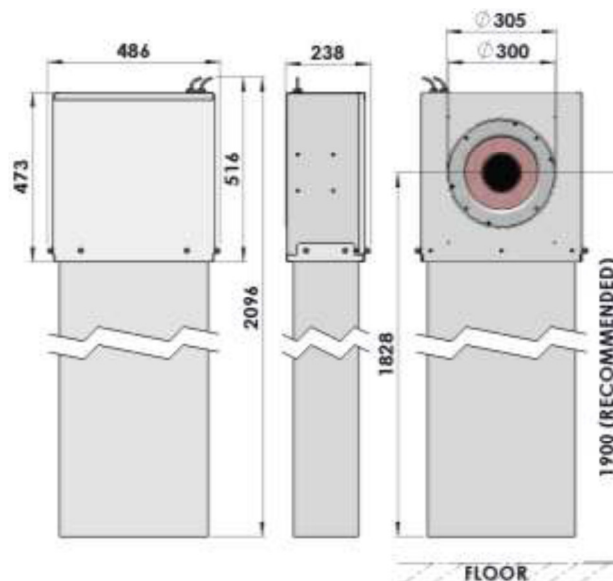
- Install the unit in small rooms up to 12 m².
- Observe the request for stagnant air – and avoid installation in rooms with obvious turbulent air streams from the equipment (internal fans).

TECHNICAL DATA

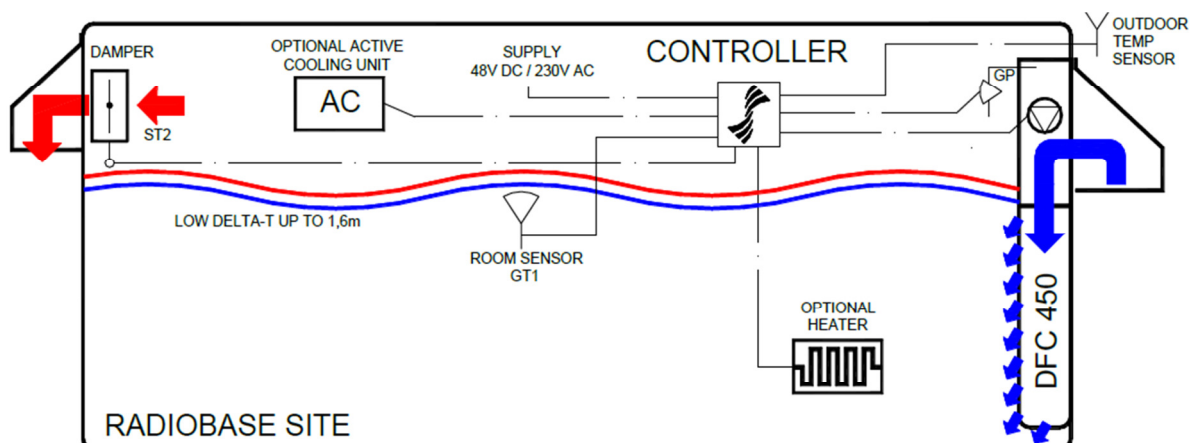
DFC 450

Version	Unit	48V DC DC-fan	230V AC EC-fan
Item number – variant			299745
F5 Bag filter item number			299749
F6 Bag filter item number			840058
Maximum air flow	l/s	305	305
Maximum cooling capacity	m³/h	1100	1100
Cooling capacity up to 1.6 m above floor at $\Delta t=5^{\circ}\text{C}$	kW	5	5
Fan max. current	A	2.5	1.1
Maximum power consumption	W	40	61
Power consumption, standby	W	3	3
Sound pressure at full speed, 5m distance from shelter	dB(A)	41	41
Filter	Class	F5 Bag	F5 Bag
Filter area	m²	2.0	2.0
Height	mm	2096	2096
Width	mm	486	486
Depth	mm	238	238
Weight	kg	13	13
Controller		ACUE 3000	TKS 3000
Air intake cut-out dimensions	mm	Ø300	Ø300

DIMENSIONS



FLOW CHART



Subject to change without notice