

Dantherm[®]
CLIMATE SOLUTIONS



AIR HANDLING UNITS

DANX CF

SWIMMING POOL AIR MANAGEMENT MADE SIMPLE FOR COMMERCIAL AND FITNESS POOLS

DANTHERMGROUP

INTRODUCTION

DANX CF WITH COUNTER-FLOW EXCHANGER

Thanks to the wide range of sizes and dehumidification capacities from 20 to 144kg/h, the DanX CF air handling units are ideal for all sizes of commercial, fitness and therapy pools. Delivering exceptional indoor comfort using very little energy, the DanX CF units are based on the latest technology allowing them to reach very high heat recovery rates at a very low pressure drop.



Reduced energy consumption – improved indoor air climate

Ensuring a comfortable, healthy indoor climate is obviously the most important job for an air handling system like the DanX CF, as this protects both the people who use the pool and your physical assets. But operating costs are equally important, and the DanX CF units are extraordinarily efficient.

We have built energy savings into every detail, with all components chosen to ensure high capacity and a long service life. The system lets you add as much as 100% outdoor air. Heat exchanger that delivers up to 95% heat recovery combined with low-energy EC fan motors and optimal, high efficiency compressor ensure the lowest possible operating costs.

Key features

- Very low total cost of ownership due to the durable and highly energy-efficient design
- Complete solution providing ultimate comfort
- Up to 100% outdoor air with free cooling in summer
- Up to 95% heat recovery efficiency
- Low-energy EC fan motors
- Effective corrosion resistance ensures long service life
- Flexible installation with a range of connection options

INTRODUCTION

DANX CF WITH COUNTER-FLOW EXCHANGER

User-friendly control system

All DanX CF solutions are supplied with a control package, which takes demand management to a new level. Based on years of experience and on-going development, the control strategy has been optimised specifically for Dantherm swimming pool units. With automatic monitoring and control of temperature, humidity and energy consumption, you are guaranteed a balanced and comfortable indoor climate – adapted to your specific requirements.

Electrical control and command

Your DanX CF unit is supplied ready wired and with all necessary sensors and safety devices installed. To make it as easy as possible to establish the electrical connection between the control panel and the DanX unit, the unit can be delivered with pre-mounted plug connections.

The secret behind the low operating costs is the control system which combines intuitive, hassle-free operation with extremely advanced control and programming options. Using the large, easy-to-read display you can easily check the current system status and adjust settings as preferred using the buttons. The controller also comes with a built-in communication capability, allowing it to be integrated into a Building Management System.

Depending on the configuration, Dantherm control systems are capable of communicating with most commonly used protocols like:

- MODBUS RTU
- MODBUS TCP/IP
- BACNET MS/TP
- BACNET TCP/IP
- LON



Intuitive and user-friendly control panel.

Functions

The functions related to the control panel are:

- Regeneration air temperature control
- Management of manual or automatic operation via the external humidistat (optional)
- Safety thermostat electric heater element with regeneration release to launch voltage magneto-thermal protection
- Regeneration cool down timing
- Reporting to display unit status and alarms
- Pre and post cooling or heating temperature control (optional)

Connect to your DanX CF from anywhere

Furthermore, the Dantherm control system can be connected to your local network and can be accessed from any computer, laptop or tablet connected to this network via standard web browsers such as Internet Explorer or Google Chrome. Alarm messages can be sent to your mail address.

SWIMMING POOL AIR HANDLING UNITS

DANX CF



The DanX CF is a very effective outdoor air dehumidification system with a highly efficient counter-flow heat exchanger. This system perfectly controls the humidity and indoor temperature while offering significant running cost reductions due to real energy savings of up to 80%. The integrated mixing function ensures that only the exact quantity of outdoor air needed is supplied. This keeps running costs at a minimum.

Free cooling is also an option during summer, when the unit can add up to 100% outdoor air into the pool area through the integrated by-pass.

For countries with high outdoor summer temperatures the system can be equipped with an additional cooling coil for further dehumidification and air cooling.

A wide range of fan types, filter qualities and coils are available on request, enabling you to create the perfect solution for your requirements.



- User-friendly control system for high-quality demand management. Automatic monitoring and control of temperature and humidity of the pool hall
- Counter-flow heat exchanger with a high efficiency of more than 90% and a low pressure drop
- Built-in bypass for free cooling in the summertime.
- Highly energy-efficient EC plug fans
- Efficient bag filters in different lengths and qualities with low pressure drops are available
- Load-bearing frame construction module with hot-dip galvanised, powder-painted sandwich panels with 50mm mineral wool insulation, internal partition walls with 30mm and bottom frame with adjustable feet
- Designed to withstand the aggressive swimming pool environment (corrosion class C4 according to EN/ISO 12944-2), with epoxy-coated counter-flow heat exchanger, heating coil with aluminium frame, pre-painted fins and epoxy coating to protect all fasteners, bolts, nuts
- Large inspection doors with strong hinges and tongue locks and handles for easy access for service
- Modular unit for easy and quick installation – all sensors and electrical components pre-connected.
- BMS communication with either Modbus or BACnet

SWIMMING POOL AIR HANDLING UNITS

DANX CF

Specifications	Units	DANX CF 3/5	DANX CF 4/7	DANX CF 6/9	DANX CF 8/12
Nominal air volume	m ³ /h	3,100	4,400	6,300	8,000
Max air volume	m ³ /h	4,500	6,500	9,000	11,500
Outdoor air volume	%	0-100	0-100	0-100	0-100
Dehumidification capacity VDI 2089*	kg/h	20	29	41	52
Power supply	V/Hz	400/3ph/50	400/3ph/50	400/3ph/50	400/3ph/50
Height	mm	1700	1700	2300	2300
Width	mm	3790	3790	4490	4490
Depth	mm	880	1185	1185	1473
Weight	kg	800	960	1335	1530

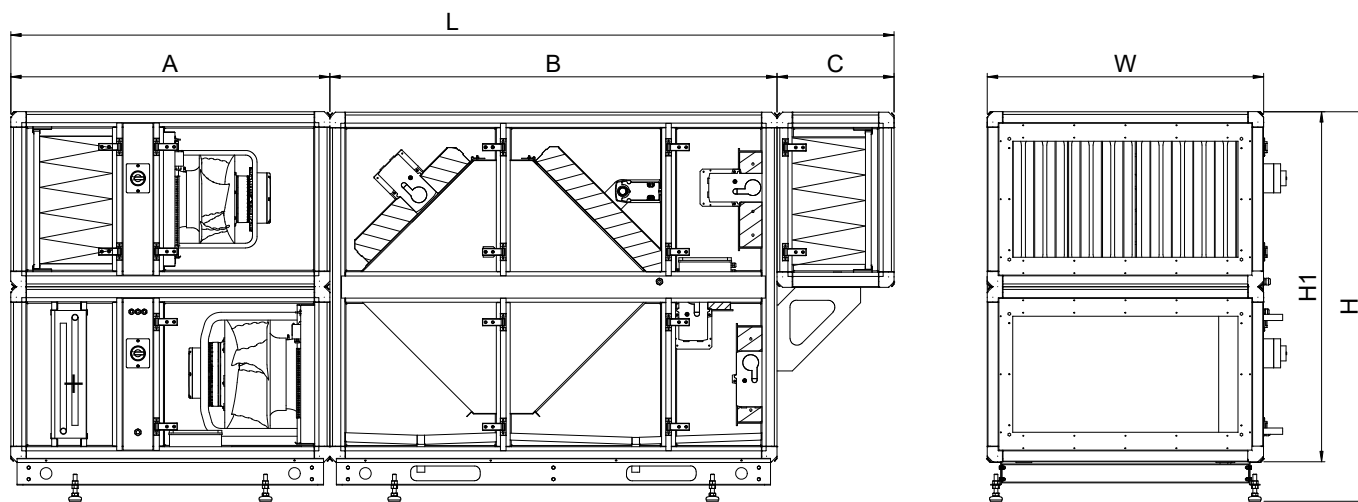
Specifications	Units	DANX CF 10/14	DANX CF 12/17	DANX CF 16/23	DANX CF 19/28	DANX CF 22/32
Nominal air volume	m ³ /h	9,800	11,600	16,000	19,000	22,000
Max air volume	m ³ /h	14,000	17,000	23,000	28,000	32,000
Outdoor air volume	%	0-100	0-100	0-100	0-100	0-100
Dehumidification capacity VDI 2089*	kg/h	63	75	104	123	142
Power supply	V/Hz	400/3ph/50	400/3ph/50	400/3ph/50	400/3ph/50	400/3ph/50
Height	mm	2300	2300	3000	3600	3600
Width	mm	4490	4490	4760	4760	4760
Depth	mm	1778	2066	1964	2066	2370
Weight	kg	1730	1950	2365	2685	2755

* at 30°C/54% indoor, ** at nominal air volume

SWIMMING POOL AIR HANDLING UNITS

DANX CF

DanX CF dimensions



DanX CF	A mm	B mm	C mm	L mm	W mm	H1 mm	H mm	Weight kg
3/5	1370	1920	500	3790	880	1500	1700	800
4/7	1370	1920	500	3790	1185	1500	1700	960
6/9	1490	2500	500	4490	1185	2100	2300	1335
8/12	1490	2500	500	4490	1473	2100	2300	1530
10/14	1490	2500	500	4490	1778	2100	2300	1730
12/17	1490	2500	500	4490	2066	2100	2300	1950
16/23	1490	2770	500	4760	1964	2800	3000	2365
19/28	1490	2770	500	4760	2066	3400	3600	2685
22/32	1490	2770	500	4760	2370	3400	3600	2755



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