



2023

HVAC SOLUTIONS

FOR SWIMMING POOLS, SPAS AND LEISURE CENTRES

DANTHERM GROUP






About the Dantherm Group

Dantherm Group is a European leader in portable and installed climate control solutions for a wide range of industries and uses. Based on the heritage of the variety of brands we own, our climate control experts build and manufacture hundreds of thousands of exceptional heating, cooling, dehumidification, air cleaning and ventilation units in our own factories in Europe every year. All of them are designed to create healthy and comfortable climate surroundings in a sustainable, energy-efficient and cost-effective way.

Why partner with us

- European design quality
- Experts in climate control
- Extensive range of solutions

INDEX

Product	Name	Description	Applications	Page
	HEAT PUMPS	Enjoy energy efficient all-year-round heating with an inverter swimming pool heat pump. With high heating performance at lower temperatures and quiet operation, our range of inverter heat pumps are suitable for residential or commercial swimming pools.	<ul style="list-style-type: none"> ● Private pools ● Spas ● Therapy & wellness pools 	4
	DEHUMIDIFIERS	Swimming pool dehumidifiers are available as wall-mounted or floor-standing units, through to high capacity and commercial ducted swimming pool dehumidifiers for any size pool or environment – offering complete humidity climate control solutions.	<ul style="list-style-type: none"> ● Private pools ● Spas, therapy & wellness pools ● Plunge pools ● Hotels & health clubs ● Holiday parks & campsites 	9
	AIR HANDLING UNITS	We supply swimming pool and commercial air handling units that are suitable for all sizes of pool, museums, galleries, leisure centres, healthcare, production, and any commercial space that requires precision air handling. The units provide effective climate control to perfectly manage temperature and humidity and are available in a variety of specifications and flexible configurations.	<ul style="list-style-type: none"> ● Private pools ● Public pools ● Leisure centres & water parks ● Hotels, schools & health clubs ● General industry & production 	15

HEAT PUMPS

With heat pumps you can easily extend the outdoors swimming season. As early as March, your water can reach pleasant temperatures and that with only a small amount of energy. Heat pumps absorb the heat from the outside air and transfer it to the pool water without generating any emissions. About 80% of the energy is sourced from the ambient air as heat and only 20% is added from the grid. SET heat pumps warm up your pool consistently and energy-efficient – so that it is swimming weather every day.



HEATING AND COOLING SOLUTIONS FOR: PRIVATE AND DOMESTIC POOLS UP TO 120M²



i-SILENT
HEAT PUMP

QUICK GUIDE

POOL TYPE



OUTDOOR



INDOOR



ABOVE GROUND

OPERATION



HEATING



COOLING



ALL YEAR HEATING

APPLICATIONS



PRIVATE POOLS



SPAS, THERAPY
& WELLNESS



PLUNGE POOLS



INVERTER HEAT PUMPS

i-SILENT 10-15-20-25



i-SILENT 10

Offering a very high heat output using very little energy, the i-Silent range stands out for its environmental friendliness and operational cost effectiveness. In fact, their energy consumption is approximately half that of traditional on/off heat pumps and 1/10 of that of gas or electrical pool heaters.

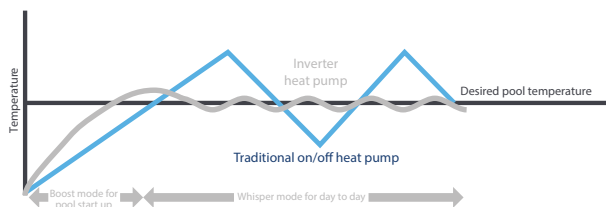
In addition, it does not require a fuel storage tank or high-capacity electrical supply. And it does not emit any CO₂ gases, fumes or smells.

Specifically designed for operation down to -10°C, the i-Silent heat pumps will extend your pool season by several months too.

Rapid installation, flexible operation

The i-Silent heat pumps are built with easy installation in mind. In terms of operation, you'll note that the highly efficient units are very quiet, reliable and safe to use.

Temperature control chart



Optional accessories



**Remote LED control kit
w/10m cable
109804**



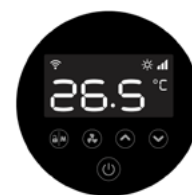
- Inverter heat pump
- Average COP 9.7 = 2 x more efficient than on/off heat pumps
- R32 = 675 GWP, (Global Warming Potential)
- Increased range of performance ratings from 10.2 to 23.2kW
- 9-11 dB(A) sound reduction compared to an equivalent on/off heat pump, with 'Whisper Mode'
- Multifunction operation functions can be set to heating, heat/cool and cooling
- Soft start-up
- Robust housing made of eloxated aluminium
- Built-in Wi-Fi module
- Winter protection cover included

Controls

The i-Silent heat pump has an integrated controller with a touchscreen user interface.

The basic functions are:

- Function settings for: Heating, Cooling or Heat/Cool
- 24-hour time clock
- Timer ON/OFF
- Parameter adjustment



INVERTER HEAT PUMPS

i-SILENT 10-15-20-25

Benefits

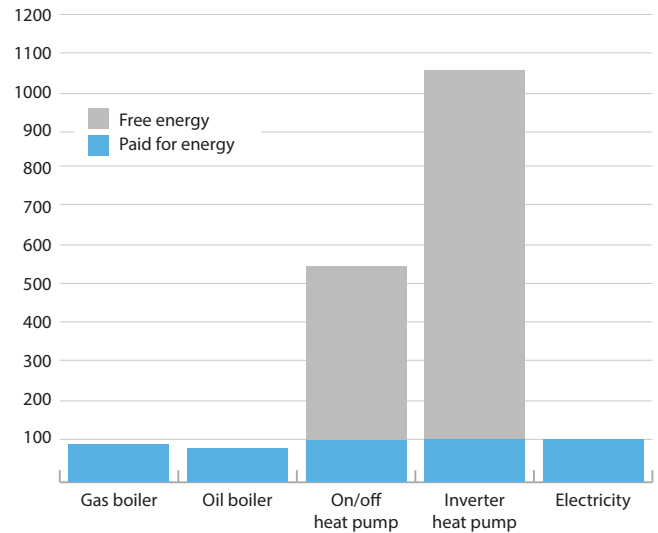
- All year heating for outdoor and indoor pools
- Can operate down to -10°C ambient air temperature
- High heating performance at lower temperatures – ideal for quick pool heat up at the start of the season
- Pool heating at altitude
- Higher cooling capacity
- Most efficient models – highest COP



The PoolTherm App for our SET inverter heat pumps is available on Android and iOS. Simply search for 'PoolTherm' in App Store or Google Play and download it today!



Heating method efficiency chart



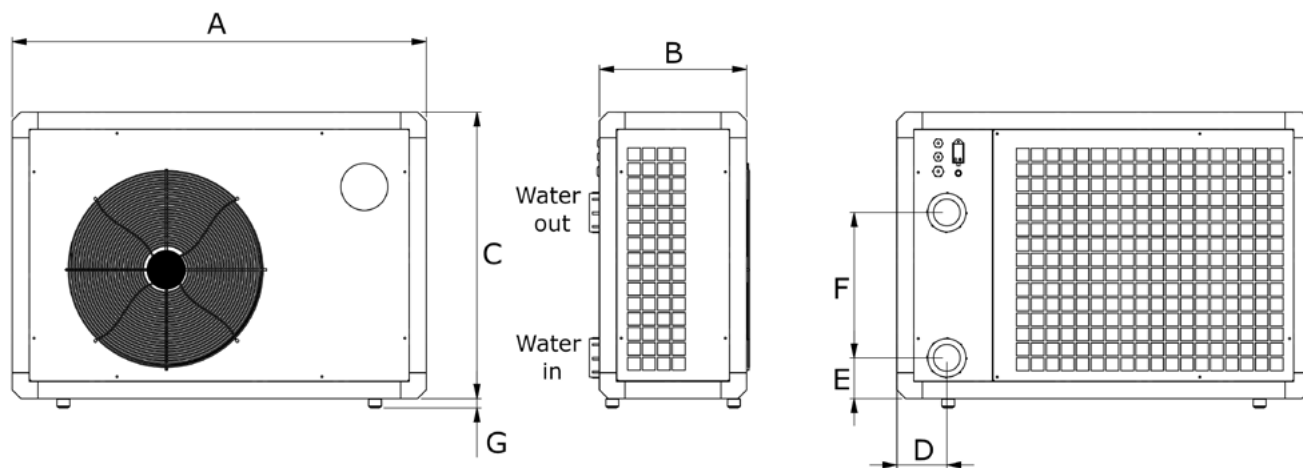
Great value, and environmentally conscious heating option, with energy consumption half that of a traditional on/off heat pump, and 1/10 of that for gas or electric pool heating.



INVERTER HEAT PUMPS

i-SILENT 10-15-20-25

Dimensions



Model	A	B	C	D	E	F	G
i-Silent 10	970	345	670	116	95	340	22
i-Silent 15	970	415	770	120	100	460	22
i-Silent 20	1103	418	973	121	98	640	22
i-Silent 25	1173	530	973	139	98	650	22

Specifications	Units	i-SILENT 10	i-SILENT 15	i-SILENT 20	i-SILENT 25
Operating temperature range	°C	-10-40	-10-40	-10-40	-10-40
Water temperature range	°C	12-40	12-40	12-40	12-40
Performance – air 15°C, 70% RH, water 26°C					
Heating capacity	kW	10.2	14.1	17.5	23.2
Performance – air 5 °C, 70 % RH, water 10 °C					
Heating capacity	kW	7.4	9.5	11.8	15.8
Performance – air 35 °C, 80 % RH, water 28 °C					
Cooling capacity	kW	6.5	9.3	11.7	15.8
Power supply	V/Hz	230/1ph/50	230/1ph/50 or 400/3ph/50	400/3ph/50	400/3ph/50
Rated input power	kW	2.2	3.1	3.9	5.2
Rated input current	A	10	13.6/3 x 4.5	3 x 5.6	3 x 7.5
Maximum input current	A	13.5	17.0/3 x 5.8	3 x 7.0	3 x 9.5
Water flow	m ³ /h	4 – 6	7 – 10	8 - 12	10 - 14
Water connection	"/mm	1½/50	1½/50	1½/50	1½/50
Compressor		Inverter	Inverter	Inverter	Inverter
Condenser		Titanium	Titanium	Titanium	Titanium
R32 gas weight	kg	0.9	1.1	2.0	2.7
Sound level @ 10m	dB(A)	20.5 – 24.0	20.5 – 33.5	23.0 – 35.0	22.8 – 34.5
Sound level @ 1m	dB(A)	40 – 45	40 – 53	43 - 55	42.8 – 54.5
Product size (w x d x h)	mm	980 x 360 x 680	980 x 420 x 780	1120 x 420 x 980	1190 x 540 x 980
Weight	kg	55	70	95	125

DEHUMIDIFIERS

The perfect feel-good atmosphere is a prerequisite for having a relaxing time in the pool. Creating this atmosphere requires efficient, complete dehumidification which regulates moisture in the pool room and protects the building fabric from any resulting damage.

Our range is carefully selected so that we can always offer a solution that meets the dehumidification requirements of all types of indoor swimming pools, such as small private pools or public leisure pools.

We have a wide range of products for an ideal atmosphere in the pool room, all sharing the same common feature of maximum efficiency. Dehumidification with heat recovery results in the greatest possible energy conservation with clear running cost reductions for every indoor pool. Our range includes free-standing units, embedded units and ducted units in various versions.



DEHUMIDIFICATION SOLUTIONS FOR: PRIVATE AND COMMERCIAL SWIMMING POOLS UP TO 100M²



SET 1501T, 2501T, 3501T



SET 1501H, 2501H, 3501H

QUICK GUIDE

POOL TYPE



INDOOR



INSTALLATION



WALL-MOUNTED



THROUGH-THE-WALL



FLOOR-STANDING



APPLICATIONS



PRIVATE POOLS



SPA & THERAPY



HOLIDAY PARKS &
CAMPSITES

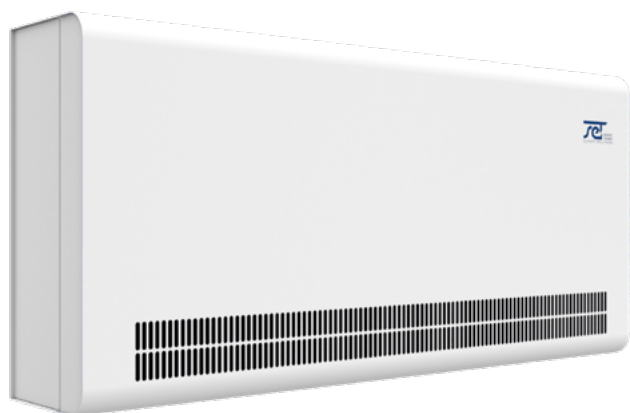


HOTELS, SCHOOLS &
HEALTH CLUBS




In compliance with VD 2089

WALL-MOUNTED/FLOOR-STANDING SWIMMING POOL DEHUMIDIFIERS SET 1501-2501-3501 T



SET 3501 T

The wall-mounted or floor-standing SET 1501-1201-1501 T condensation dehumidifiers are stylish and elegant and have been designed to blend well with any modern pool interior. Offering energy-efficient and near-silent humidity control, the units were conceived with a view to quality and ease of operation. Combined with highly efficient fans and compressors, the advanced remote control and monitoring options contribute to cost-efficient operation and significant energy savings.

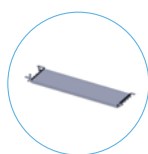


- Low sound level
- Low energy consumption
- Evaporator and condenser coils are epoxy coated
- Metal parts are powder coated before assembly
- Optional remote control
- Integrated control of heating and humidity
- BMS Communication (Modbus)

Optional accessories



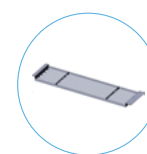
Wireless remote control DRC1



Water heating coils



Control valve for water heating coil



Electric heating coils



Exhaust fans



External RH/t sensor

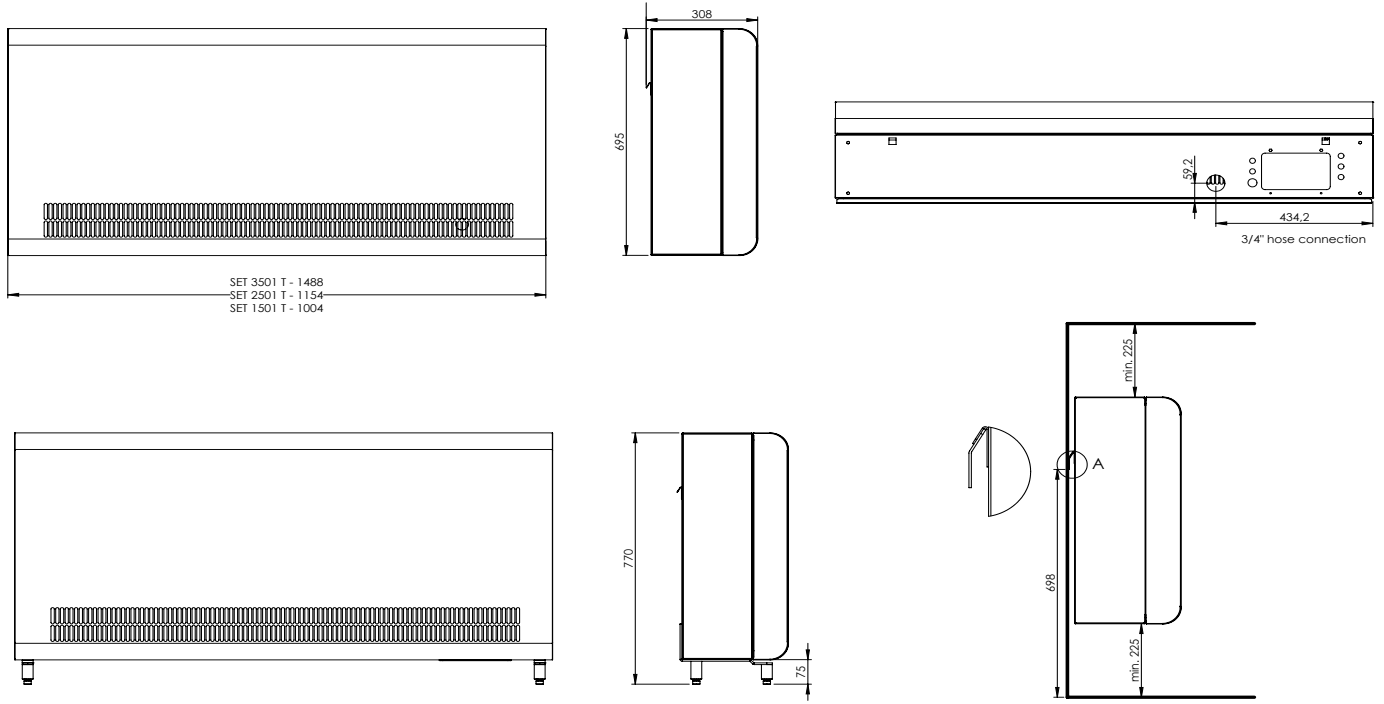
Specifications	Units	SET 1501 T	SET 2501 T	SET 3501 T
Operating temperature range	°C	10-36	10-36	10-36
Operating humidity range	% RH	40-100	40-100	40-100
Dehumidification capacity	kg/h	1.45	2.34	3.37
Air flow	m ³ /h	400	680	900
Sound pressure level	dB(A)	46	47	50
Power supply	V/Hz	230/1ph/50	230/1ph/50	230/1ph/50
Total connected load	kW	0.9	1.5	1.8
Fuse	A	3.8	6.6	8.0
R407C gas weight/CO2 equivalent	kg/t	0.7/1.24	0.9/1.60	1.2/2.13
Product size (w x d x h)	mm	1004 x 308 x 695	1154 x 308 x 695	1488 x 308 x 695
Weight	kg	56.5	65.0	75.5

The technical data refer to room at 30°C/60% RH and pool water at 28°C.

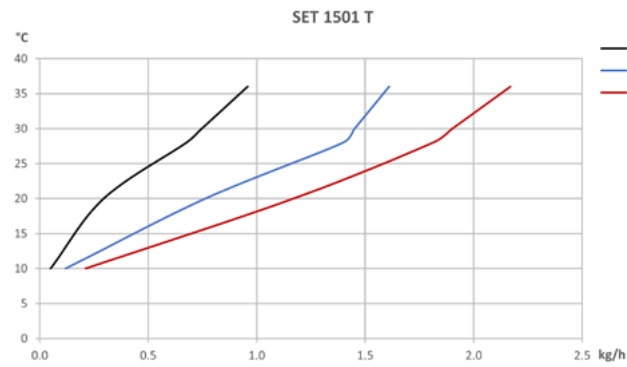
WALL-MOUNTED/FLOOR-STANDING SWIMMING POOL DEHUMIDIFIERS SET 1501-2501-3501 T



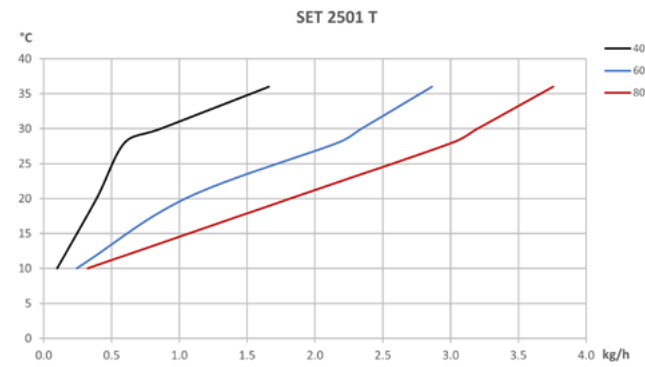
Dimensions (mm)



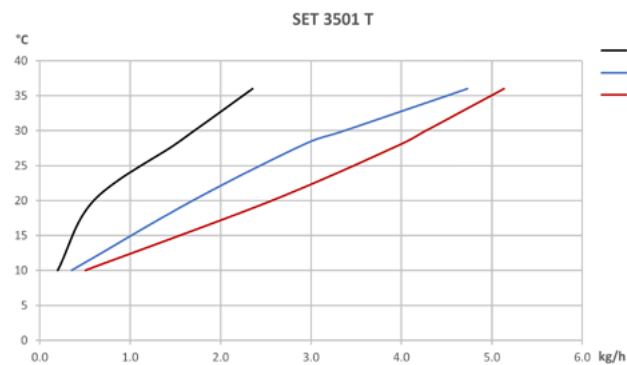
Performance data



Specific energy consumption (SEC):
0.47 kWh/l at 28°C & 60% RH



Specific energy consumption (SEC):
0.48 kWh/l at 28°C & 60% RH



Specific energy consumption (SEC):
0.43 kWh/l at 28°C & 60% RH

WALL-MOUNTED SWIMMING POOL DEHUMIDIFIERS SET 1501-2501-3501 H



SET 1501 H

Designed for through-the-wall mounting in swimming pool plant rooms, the SET 1501-2501-3501 H condensation dehumidifiers are built to last and come with easy-to-use remote control and monitoring options. The efficient fans and compressors used in the units secure efficient operation and significantly reduce energy consumption.

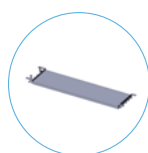


- Low sound level
- Low energy consumption
- Evaporator and condenser coils are epoxy coated
- Metal parts are powder coated before assembly
- Optional remote control
- Integrated control of heating and humidity (ON/OFF)
- BMS Communication (Modbus)
- Direct connection of 230 V
- Continuous/Auto fan mode
- Simple troubleshooting by operational parameter visualization

Optional accessories



Wireless remote control DRC1



Water heating coils



Control valve for water heating coil



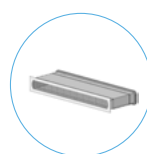
Duct lead-in adapter



Electric heating coils



Exhaust fans



Through-wall duct kit with filter, extension kit and alu grill



External RH/t sensor

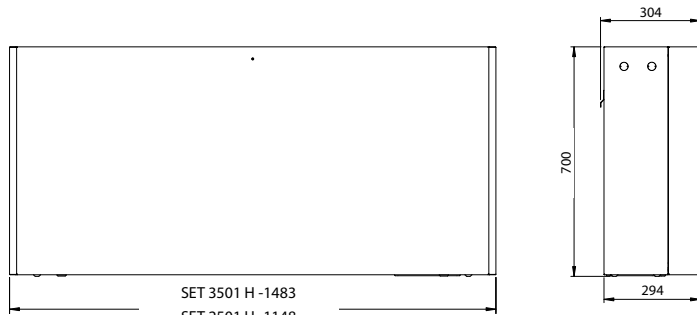
Specifications	Units	SET 1501 H	SET 2501 H	SET 3501 H
Operating temperature range	°C	10-36	10-36	10-36
Operating humidity range	% RH	40-100	40-100	40-100
Dehumidification capacity*	kg/h	1.45	2.34	3.37
SEC @ 28°C/60% RH	kWh/l	0.47	0.48	0.43
Air flow	m ³ /h	400	680	900
Sound pressure level @1m	dB(A)	43	44	47
Power supply	V/Hz	230/1ph/50	230/1ph/50	230/1ph/50
Total connected load	kW	0.9	1.5	1.8
Fuse	A	3.8	6.6	8.0
R407C gas weight/CO ₂ equivalent	kg/t	0.7/1.24	0.9/1.60	1.2/2.13
Product size (w x d x h)	mm	998 x 304 x 700	1148 x 304 x 700	1483 x 304 x 700
Weight	kg	57.5	66.0	77.5

The technical data refer to room at 30°C/60% RH and pool water at 28°C.

WALL-MOUNTED SWIMMING POOL DEHUMIDIFIERS SET 1501-2501-3501 H

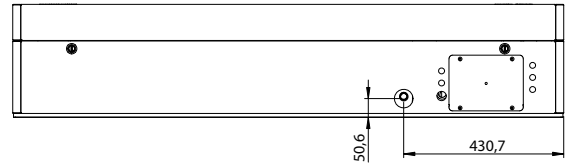


Dimensions (mm)

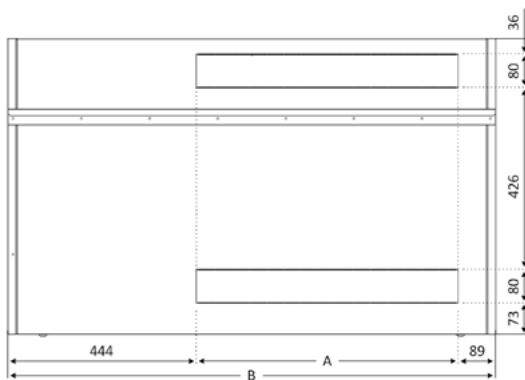
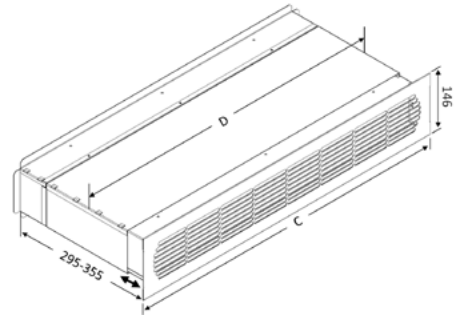


SET 3501 H - 1483
SET 2501 H - 1148
SET 1501 H - 998

Drain outlet position

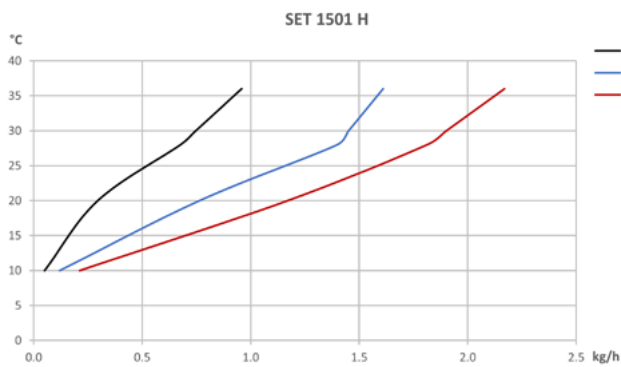


Duct kits

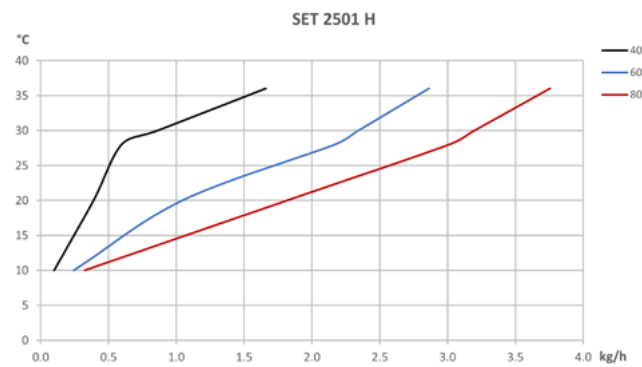


Model	A	B	C	D	Wall opening
SET 1501 H	466	998	642	603	610 x 110
SET 2501 H	616	1147	791	753	760 x 110
SET 3501 H	753	1483	1126	1088	1095 x 110

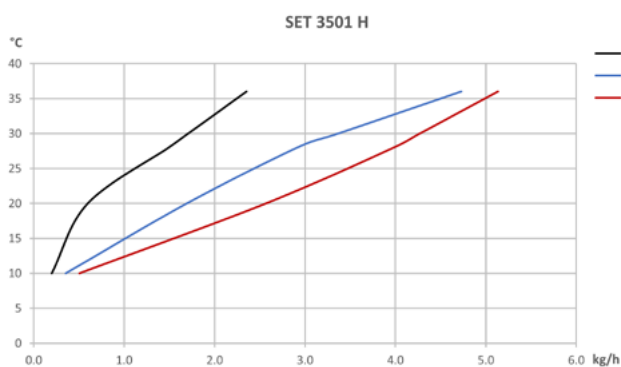
Performance data



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0.43 kWh/l at 28°C & 60% RH

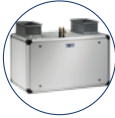








AIR HANDLING UNITS

Our dehumidification systems actively protect against moisture damage, and are tailor-made to suit the requirements in any indoor pool.

Whether you are seeking a solution for a compact indoor or hotel pool, or an Olympic-sized giant pool for public use, our flexible production process guarantees that your system is designed to fulfil your needs, while at the same time helping you secure maximum energy savings through effective heat recovery.



AIR HANDLING SOLUTIONS FOR: PRIVATE AND COMMERCIAL SWIMMING POOLS

QUICK GUIDE	 UML 1	 AFX 1
POOL TYPE  INDOOR	●	●
OPERATION  WITH HEAT PUMP  WITH HEAT RECOVERY SYSTEM AND HEAT PUMP	●	●
APPLICATIONS  PRIVATE POOLS  PUBLIC POOLS  HOTELS, SCHOOLS & HEALTH CLUBS  LEISURE CENTRES	● ● ● ●	● ● ● ●

AIR HANDLING UNITS

UML 1

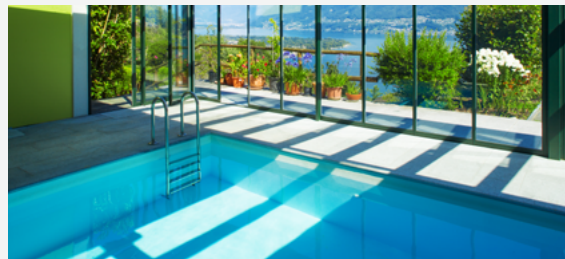


UML 1

Based on modern technology and fitted with either electronic or digital control and extremely efficient and energy-saving EC fans, this range of ducted dehumidifiers with heat recovery and air recirculation capabilities has been specifically designed for flexible installation and near-silent operation.

The units are fully compatible with a range of accessories that will help you make them fit perfectly into your pool environment.

Moreover, the units are fully compatible with our in-house DUCTSET system which helps secure very low operating costs. By connecting silencers, floor outlet rails and grilles, the units can run almost entirely silent. A long product life is ensured by using the very best materials such as robust plastics, high-alloy aluminium (Al Mg3), copper and stainless steel. The electronic or digital controller makes energy management in the pool room accurate, stable and efficient.



- State-of-the-art technology
- Electronic or digital control
- 10-20% fresh air share possible
- Highly efficient EC fans
- Near-silent operation possible
- Compatible with SET's energy-saving DUCTSET system
- Additional room heating not absolutely necessary

Specifications	Units	UML 2601	UML 3601	UML 4601	UML 6601	UML 8601
Suitable for pool size	m ²	up to 30	30-40	40-50	50-70	70-100
Operating temperature range	°C	+16/95% - +35/50%	+16/95% - +35/50%	+16/95% - +35/50%	+16/95% - +35/50%	+16/95% - +35/50%
Fresh air share	%	10-20	10-20	10-20	10-20	10-20
Dehumidification capacity*	kg/h	2.4	3.3	4.1	6.1	8.2
Air flow	m ³ /h	500 (400-600)	1000 (800-1200)	1200 (1000-1500)	1400 (1000-1600)	2500 (2000-2800)
Heat recovery to air	kW	2.6	3.6	4.8	7.1	9.0
Heat recovery to water (min. - max.)	kW	0.6-2.1	1.2-3.1	1.4-3.8	2.3-6.0	2.7-7.2
Rated voltage	V/Hz	AC 230V 1 N	AC 400V 3 N	AC 400V 3 N	AC 400V 3 N	AC 400V 3 N
Total connected load	kW	1.1	1.9	2.2	2.9	3.2
Fuse	A	1 x 10	3 x 10	3 x 10	3 x 16	3 x 16
Product size (w x d x h)	mm	1100 x 525 x 550	1425 x 740 x 640	1425 x 740 x 640	1425 x 740 x 640	2140 x 790 x 740 2-pcs.
Power consumption	kW	0.84	1.65	1.54	1.94	2.23

*Dehumidification (recirculated air 30°C/60% RH)

The technical data refer to room temperature 30°C/humidity 60% pool water temperature 28°C

AIR HANDLING UNITS

AFX 1



AFX 1

The AFX 1 dehumidifier range offers unsurpassed dehumidification and heat recovery performance using minimal energy. With its two-stage heat recovery functionality and highly efficient EC fans, the range has been conceptualised and designed to create extremely comfortable indoor climates using very little energy. Capable of maximising reuse of the exhaust air energy, the heat recovered by the heat pump system is returned to the air in the pool room and optionally to the pool water.



- Two-stage heat recovery cuts energy costs
- Dehumidifies, cools and ventilates
- Up to 100% fresh air
- Ideal for higher water temperatures > 30°C
- No additional installations necessary to heat the room
- Digital control

Specifications	Units	AFX 3601	AFX 4601	AFX 6601	AFX 8601
Suitable for pool size	m ²	40-50	40-60	50-75	70-100
Temperature range	°C	+16/95% – +35/50%	+16/95% – +35/50%	+16/95% – +35/50%	+16/95% – +35/50%
Fresh air share	%	100	100	100	100
Dehumidification capacity*	kg/h	3.3	4.1	6.1	8.2
Dehumidification (fresh air 1/2/3)	kg/h	9/13/17	11/16/20	12/18/23	21/32/43
Air flow	m ³ /h	1000 (800-1200)	1200 (1000-1500)	1400 (1000-1600)	2500 (2000-2600)
Heat recovery to air	kW	3.9	4.8	7.1	9.0
Heat recovery to water (min. - max.)	kW	1.2-3.1	1.4-3.8	2.25-6.0	2.7-7.2
Rated voltage	V/Hz	AC 400 V 3 N	AC 400V 3 N	AC 400V 3 N	AC 400V 3 N
Total connected load	kW	2.5	2.5	3.0	4.0
Fuse	A	3 x 10	3 x 10	3 x 16	3 x 16
Product size (w x d x h)	mm	2240 x 740 x 640	2240 x 740 x 640	2240 x 740 x 640	2880 x 790 x 740
Power consumption	kW	0.84	1.35	1.54	1.94

*Dehumidification (recirculated air 30°C/60% RH)

The technical data refer to room temperature 30°C/humidity 60% pool water temperature 28°C

AIR HANDLING UNITS

AFX 1

Specifications	Units	AFX 3601L	AFX 4601L	AFX 6601L	AFX 8601L
Suitable for pool size	m ²	40-50	40-60	50-75	70-100
Temperature range	°C	+16/95% – +35/50%	+16/95% – +35/50%	+16/95% – +35/50%	+16/95% – +35/50%
Fresh air share	%	100	100	100	100
Dehumidification capacity*	kg/h	3.3	4.1	6.1	8.2
Dehumidification (fresh air 1/2/3)	kg/h	22/38/50	22/38/50	22/38/50	25/43/57
Air flow	m ³ /h	2800 (2000-3000)	2800 (2000-3000)	2800 (2000-3000)	3200 (2500-3500)
Heat recovery to air	kW	3.9	4.8	7.1	9.0
Heat recovery to water (min. - max.)	kW	1.2-3.1	1.4-3.8	2.3-6.0	2.7-7.2
Rated voltage	V/Hz	AC 400 V 3 N	AC 400V 3 N	AC 400V 3 N	AC 400V 3 N
Total connected load	kW	3.3	3.3	3.6	4.2
Fuse	A	3 x 16	3 x 20	3 x 20	3 x 25
Power consumption	kW	1.60	1.54	1.94	2.23
Product size (w x d x h)	mm	2880 x 790 x 740	2880 x 790 x 740	2880 x 790 x 740	2880 x 790 x 740

*Dehumidification (recirculated air 30°C/60% RH)

The technical data refer to room temperature 30°C/humidity 60% pool water temperature 28°C



ACCESSORIES



ACCESSORIES

UML / AFX

Accessory	Description
Operating and fault reporting unit BSE	Module with LED display on the front of the appliance. Shows the following operating statuses (or faults): voltage / heating / dehumidifying / low pressure / high pressure/ motor protection.
Pump hot water heat register PWW/ electric heat register E	Additional heat exchanger for heating the pool room or for boosting the static basic heating, complete with control and fitted valve.
Exhaust air control FL	Module with mode selection switch (default: "automatic"). Prevents odours and condensation in neighbouring rooms / Prevents excessive temperature in the pool room / Provides necessary fresh air supply.
Fresh air intake AL	Wall box with filter and weather protection grille. Only necessary in combination with "FL" if there is no air flow through the neighbouring rooms.
Pool water condenser WRG	For heating the pool water. Titanium as an option.
Modulating bypass tracking	Operating range 8 – 35 °C / Necessary when there are great differences in temperature in the pool room.
SETLog 3.0	Regulated with PLC control and additional features. Digital control for convenient touch-screen operation and for linking with smart-home solutions and building automation systems (KNX, BACnet, Modbus).

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