



» *QUALITY AIR FOR YOUR GUESTS*

Swimming pool dehumidification from HANSA Klimasysteme



*Die like Wai is die bääste**

* Saterland Frisian for “The straight path is the best”



Our company is synonymous with innovation and development. These have been the key aspects of our work since our company was established. We have always focused on continuous communication and added value in every case in order to make the best-possible decisions from an economic, ecological and social point of view.

Only if all these aspects are taken into consideration we can ensure sustainability – and the name HANSA stands for sustainability today.

Jan Neumann
Managing Director



ABOUT US

Since 1961, HANSA Klimasysteme GmbH has had its headquarters in Strücklingen in the municipality of Saterland – which, with its Saterland Frisian dialect, is recognised as the smallest language enclave in Germany. However, we speak plainly through our products.

Our company

Since the company was established, we have earned a positive reputation throughout Germany and far beyond for the construction of air handling equipment for schools, sports halls, swimming pools, hospitals and industrial and process engineering applications. On this basis, we offer a broad range of different air conditioning units for a wide variety of applications.

We guarantee a maximum level of quality, functionality and reliability, as well as excellent energy efficiency. Throughout the

We have been the guarantee for high-quality, technically sophisticated air conditioning systems for many decades. Our company is distinguished by continuity and stability, with the Neumann family having managed the enterprise since 1971.

course of our development work, numerous property rights have been registered with the European Patent Office, where they were found to be patentable and worthy of protection.

As a member of RLT Herstellerverband e.V., the AHU manufacturers' association, we design our units to comply with AHU directives, ensuring that our customers and the operators of our systems enjoy quality, operational reliability and legal certainty at all times.

Our team

We continuously train our employees and young talent in order to safeguard our future. The HANSA team consists of experienced skilled professionals in the areas of air handling equipment manufacturing and the associated specialised divisions for refrigeration technology and control technology and systems.

Design and production are executed under QM conditions and in accordance with DIN EN ISO 9001:2015.

Our sales team consists of experts who are certain to plan and develop the ideal solution for you.

Our philosophy

Our goal is to fulfil our customer's wishes in an optimum manner and, also, contribute to the protection of the environment. We provide systems for this purpose which, thanks to flexible production processes and modern components, can be adapted to the individual operating conditions at customers while simultaneously consuming as little energy as

possible. Investment and energy costs also fall, as the energy needs of the entire system and individual modules can be reduced without impairing the performance of the system.

We have been a climate-neutral company since 2020, and the manufacture of our products is also climate-neutral.

Committed to the climate – and not only through our equipment



HANSA is a member of the Herstellerverband Raumlufotechnische Geräte e.V. association for AHU manufacturers

BATHING EXPERTISE

Dehumidification and air conditioning solutions

HANSA has been producing swimming pool dehumidifiers and developing intelligent air conditioning solutions for decades. You too can benefit from the longevity of our devices, despite the corrosive environments in which they are

installed. Flexible production conditions and state-of-the-art components enable us to adapt to your individual operating conditions. **We reduce your energy needs while simultaneously lowering your investment and energy costs.**





Building protection

Water temperatures of around 30 °C result in the evaporation of approximately 0.4 litres of water per hour for every square metre of the water surface. This enormous evaporation volume creates

an equally high level of humidity within your building. Our systems avoid dew points on wall and ceiling elements, preventing severe long-term damage to buildings.

HANSA Pool Line

HANSA swimming pool dehumidifiers are available in a variety of series. These are distinguished from each other through the air capacity range and the

technical design of the heat recovery system (plate heat exchangers). All of these units can also be provided with an integrated heat pump.



The challenge

- Energy management that is as efficient as possible
- High corrosion protection for the unit and all unit components
- Adaptation of existing models
- Assurance of high availability

Our solution

- Careful selection of highly efficient unit components
- Optimum unit configuration for each individual application
- AI-based, self-learning *etaSmart* control
- Highly efficient heat recovery systems
- High level of corrosion protection for all materials and components used
- Exclusive use of components from reputable manufacturers



Further information on our Pool Line swimming pool dehumidifiers is available from page 20.



Value proposition

- ✓ Avoidance of dew points
- ✓ Fresh air exchange
- ✓ Maintenance of humidity levels
- ✓ Optimised air temperature control
- ✓ Optimised energy management system
- ✓ High corrosion protection
- ✓ Standard vapour diffusion
- ✓ Removal of odours and pollutants
- ✓ Avoidance of fungal growth
- ✓ Highly efficient heat recovery system
- ✓ Reduction of operating costs

REFERENCES

Stadtbad Schöneberg

Pleasant and suffused with light: swimming enjoyment in the Schöneberg municipal baths. HANSA Pool Line units with an integrated heat pump ensure highly efficient air conditioning and building protection.



Bio Seehotel Zeulenroda

Responsibility for the environment sees staff resolutely implementing their concept of the “green” hotel. Air conditioning units from HANSA enable the achievement of sustainable and energy-efficient air conditioning in the hotel.



Erlebnisbad Les Thermes

An aquapark in Strassen, west of Luxembourg, with an extensive leisure pool complex and connected sauna and wellness facility. Five Pool Line dehumidifiers from HANSA ensure excellent air conditioning at all times.



Ocean Wave

A special feature of this complex is the pool filled with seawater. This challenge of an increased risk of corrosion of our humidifiers is countered effectively by the 10 units we have installed.



Center Parcs Park

With Aqua Mundo, the largest tropical bathing paradise, and the separate Spa & Country Club, Park Allgäu is a welcoming resort to relax in. Over 30 air conditioning units from HANSA ensure that guests enjoy every area of the resort.



Aquadrom Ruda

An aquapark in Ruda Slaska in Poland's Upper Silesia Metropolitan Union. We are proud to provide a complete and comprehensive air conditioning concept for this complex through a total of 14 air handling units for a variety of purposes.



Spreewaldtherme

The aspiration of the thermal bath to provide a lasting relaxation experience is also met through highly efficient and economic units installed by HANSA, in part with adiabatic evaporative cooling.



Hamilton College

At an earlier stage than the rest of the United States, the facility manager of the college aimed to install units that, in addition to being cost-effective, were also energy efficient. HANSA was, and still is, the ideal partner for this purpose. One of the buildings realised involved air conditioning for the college's Bristol Pool through the installation of several Pool Line units.

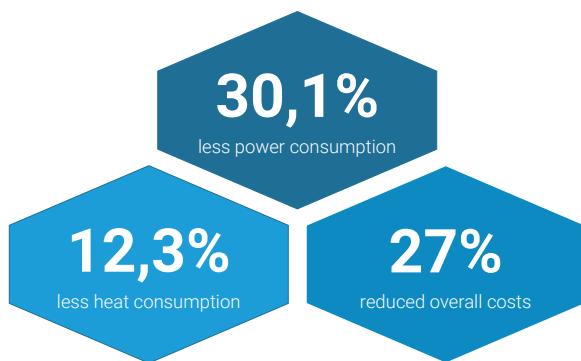




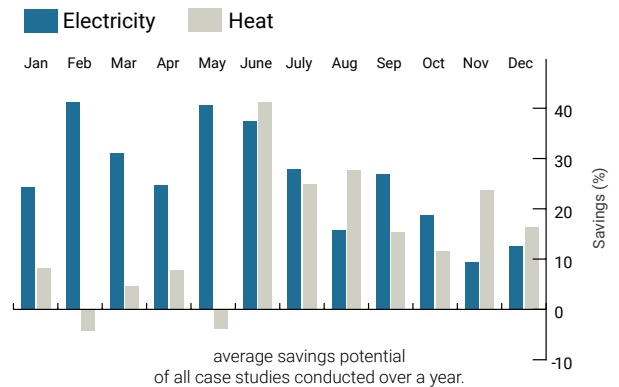
What is *etaSmart*?

etaSmart is the latest innovation in the *etaTech* family from HANSA. Optimised for pool and bathing operators, this add-on enables you to reduce costs and, simultaneously, contribute to

environmental protection. Our artificial intelligence system determines the most energy-efficient operating status and ensures proactive control.



The figure shows the average savings potential of all case studies carried out.



What exactly does *etaSmart* encompass?

etaSmart is the generic term for the predictive, self-learning control system for swimming pool dehumidifiers developed by HANSA Klimasysteme GmbH.

Predictive » Proactive and self-learning – the control system can independently adapt the control behaviour during active operation of the unit.

can be used for

- ✓ **New system**
- ✓ **Old system**

depending on the installed control

Our *etaSmart* innovation

ETA

HANSA Klimasysteme GmbH developed the *etaSmart* AI control system in the context of a project supported by the DBU (Deutsche Bundesstiftung Umwelt). Air handling systems (AHU systems) are indispensable when it comes to air conditioning and the supply of fresh

air in modern pools and bathing facilities. The volume of fresh air involved, humidity, sterility and hygiene are, naturally enough, essential factors. In addition to the technical design of units, the quality of the control algorithms employed play a significant role. Our newly developed *etaSmart* AI control system facilitates optimum control of your dehumidifiers.

From *etaSmart*, naturally

Cloud level » Data is secured on this protected, superordinate level to suit each individual location. This means your system can learn from other experienced systems, improving its efficiency. Integrated security management, dashboards and an app store provide you with additional useful functions.

etaSmart level » This level is enabled on your device. Actual modelling on these industrial PCs occurs through both neural circuits and physically based modelling.

Retrofitting of old systems with an appropriate control system can also be realised without difficulty.

Device level » Actual control of the air conditioning units occurs here. The components are controlled in the most energy-efficient manner possible, depending on the model involved. Our Pool Line range offers you a variety of individually adaptable models to suit your particular requirements.





How does *etaSmart* work?

⇒ Influencing variables  Controllable  Target variables

- | | | |
|------------------------------------|--------------------------|------------------------|
| » Outdoor temperature | » Mixed air volume | » Indoor temperature |
| » Outdoor humidity | » Heat pump capacity | » Indoor humidity |
| » Pool configuration and occupancy | » Flow rate | » Lowest energy demand |
| » Solar radiation | » Circulating air volume | » Positive comfort |
| » Weather forecast | » Hot water capacity | |

Which costs are involved?

The actual outlay varies depending on the demands on your system.

Cost are, depending on the circumstances, generally incurred through the following:

- Unit modelling
- Building modelling
- Adaptation of existing model
- Additional sensors: *etaWatch* lite
- Industrial PC
- Annual Siemens LiveTwin software costs

CASE STUDIES

Barßel and Ramsloh case study

HANSA conducted and documented several case studies in the region to illustrate the savings potential for pool and bathing facilities with different operating conditions.

Swimming pool in Ramsloh

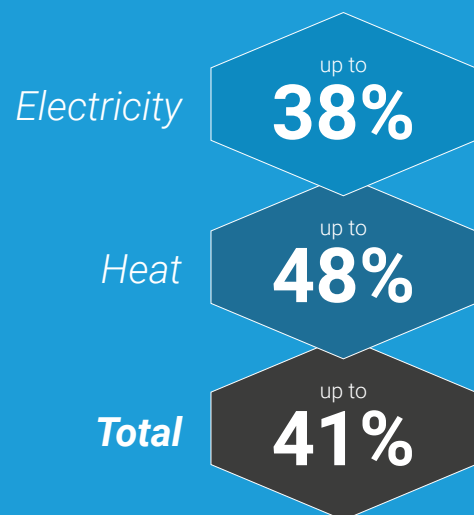
Unit 1: 12 000 m³/h with heat pump

Unit 2: 10 000 m³/h

Model approach: Modelling of both units and building

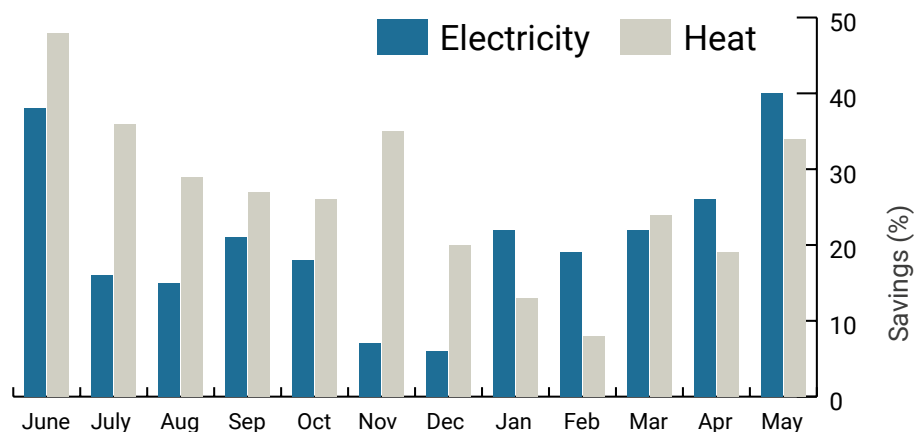
Savings

The municipality of Saterland saves almost €5,000 per annum.



Savings:

June	€595
July	€345
Aug	€319
Sep	€407
Oct	€354
Nov	€364
Dec	€238
Jan	€309
Feb	€238
Mar	€382
Apr	€373
May	€648



Swimming pool in Barßel

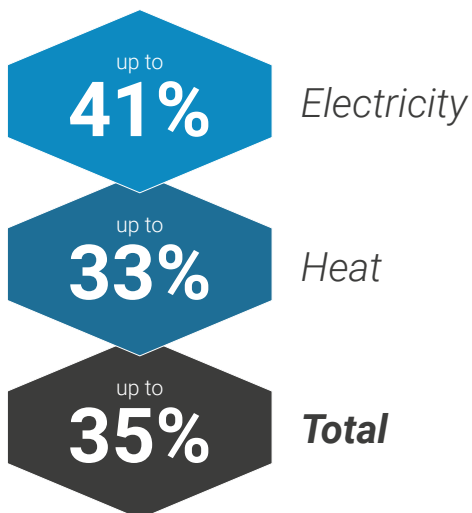
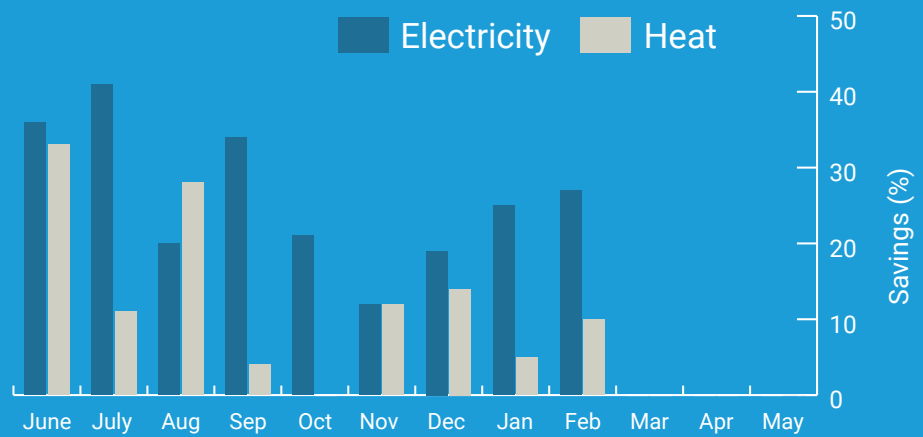
Unit 1: 12 000 m³/h with heat pump

Unit 2: 6 000 m³/h

Model approach: Modelling of both units, standardised building model

Savings:

June	€583
July	€778
Aug	€397
Sep	€492
Oct	€126
Nov	€204
Dec	€283
Jan	€236
Feb	€331
Mar	-
Apr	-
May	-



Savings

Barßel also saves more than one third of the costs.

OUR CLIMATE

Global climate

Climate change is one of the greatest challenges we face today, which is why the reduction of emissions plays such a major role in our company. The consequences of global warming are becoming increasingly noticeable and can only be counteracted through resolute action. However, as the emission reductions currently pledged by countries are, on their own, inadequate, a consid-

erable effort is required to counter man-made climate change. We are acutely aware of our obligation to make a contribution here, as safeguarding the future of coming generations is a responsibility that we all bear. This is why we have been climate-neutral since 2020. What's more, we are the first and only company in our sector to achieve this.





Air conditioning systems

HANSA stands out through its individual air handling and air conditioning system solutions for every application area. Our focus has been on innovation and development ever since our company was founded, and we consistently strive to achieve energy and operating cost reductions in the best possible manner. WE provide optimum solutions for swimming pools, IT cooling, hygiene, industry,

laboratories, schools and much more. Air conditioning has never been easier, thanks to the best possible service and new technologies such as our in-house *etaTech* systems. The adaptability of our products and the expertise of our staff enable us to guarantee an optimum and highly efficient system solution in every case.

Working environment

The satisfaction level of each employee plays an essential role at our company. Success and sustainability can only be assured through a pleasant and fulfilling way of working. It is important to us that we design our approach here together to ensure that we develop further as a team and, consequently, as a company. We

promote the training of all our employees in order to strengthen potential. This ensures that all obstacles are removed from the career path of each individual employee. Whether as an apprentice, student, skilled worker or new employee from outside our sector, we write our success story together in our company!

POOL LINE



What is Pool Line?

HANSA swimming pool dehumidifiers are available in a variety of series. These are distinguished from each other through the technical design of the heat recovery system (plate heat exchangers) and the air capacity range.

Each of these units is also optionally available with a freely adjustable heat pump. Benefit from the experience of the leading supplier of swimming pool

POOL

dehumidifiers. Benefit from the longevity of our devices. Our customers can attest to a useful life of several decades. Re-

duce your operating costs. In combination with energy-efficient components, our control system expertise

ensures that you enjoy energetically optimised and, consequently, the most cost-effective operation of equipment.

Pool Line PL-P

The characteristics and design parameters illustrated here were configured for illustrative purposes so that, in the absence of a heat pump, applicable values for meeting the ecodesign guideline and, consequently, the AHU energy efficiency class A+, are achieved. We are happy to supply you with a unit optimised to address your application. Get in touch with us!

- Compact units with double plate exchanger
- Air capacities of 1,500 m³/h to 3,400 m³/h
- Private pools up to 105 m²
Indoor pools up to 74 m²
Leisure pools up to 54 m²
Wave pools up to 44 m²
Therapy pools up to 25 m²
- Optionally available with a freely adjustable heat pump
- Housing design:
Very solid thermally broken 30 mm profiles with appropriate planking, indoor installation
- The latest generation of EC fans
- Unit control included, mounted laterally on the unit with optimised operating strategy



	P-015	P-023	P-034
Width ¹	670	880	1080
Height ¹	2000	2000	2100
Length ¹	1860	1860	2070
Weight ²	565	720	855

¹ Details in millimetres ² Details in kilogrammes

Exemplary depiction of different operating options:



Operation with high circulating air volume



Operation with 100% outdoor air



Operation at high outdoor temperatures



Circulating air only (e.g. standby mode)



Erfüllt Verordnung (EU) 1253/2014 zur umweltgerechten Gestaltung von Lüftungsanlagen

<i>Application area</i> ¹⁾		P-015	P-023	P-034
Private pool	m ²	44	67	105
Indoor pool	m ²	33	51	74
Leisure pool	m ²	24	37	54
Wave pool	m ²	19	29	44
Therapy pool	m ²	11	16	25
Nominal flow rate	m ³ /h	1 500	2 300	3 400
Dehumidification capacity ²⁾	kg/h	9.7	14.9	22
Energy recovery				
Capacity ³⁾	kW	18.2	28.1	41.5
Efficiency acc. to DIN EN 308 ⁴⁾	%	77.6	77.4	78.8
Ext. pressure loss				
Outdoor air – supply air	Pa	400	400	400
Return air – exhaust air	Pa	400	400	400
Supply air fan				
Electrical system performance	kW	0.54	0.87	1.45
Motor rated power	kW	0.75	1.05	1.8
Return air fan				
Electrical system performance	kW	0.51	0.83	1.38
Motor rated power	kW	0.75	1.05	1.8
PWW ⁵⁾				
Capacity	kW	8	12	18
Heat pump (optional)				
Heat output	kW	7	10.3	15.2
Coefficient of performance	COP	4.6	4.5	4.6
Sound power level on				
Supply air connection	dB(A)	80	82	85
Return air connection	dB(A)	68	69	73
Outside air connection	dB(A)	58	60	63
Exhaust air connection	dB(A)	71	73	76
Electrical connection data at 400 V / 50 Hz (with heat pump)				
Voltage	V	230/400	400	400
Connected load	kW	5	6.7	9.6
Current consumption	A	9	12	18
Filter (min. filter class)				
Exhaust air filter DIN ISO EN 16890	Class ePM1	50%	50%	50%
Outside air filter DIN ISO EN 16890	Class ePM1	50%	50%	50%

¹⁾ based on VDI 2089 at $T_{\text{water}} = 28 \text{ °C}$ and $T_{\text{room}} = 30 \text{ °C} / 54\% \text{ RH}$, relative to the water surface

²⁾ acc. to VDI 2089 at nominal flow rate

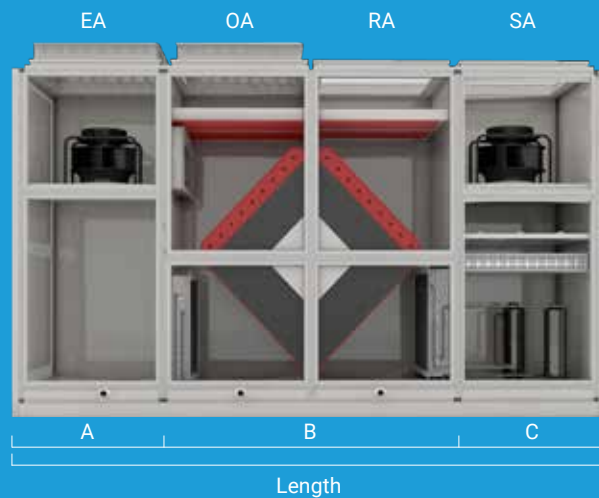
³⁾ at nominal flow rate for $T_{\text{outdoor air}} = -12 \text{ °C} / 90\% \text{ RH}$; $T_{\text{return air}} = 30 \text{ °C} / 54\% \text{ RH}$

⁴⁾ at nominal flow rate for $T_{\text{outdoor air}} = 5 \text{ °C} / 10\% \text{ RH}$; $T_{\text{return air}} = 25 \text{ °C} / 10\% \text{ RH}$

⁵⁾ Air intake temperature: 18 °C; water temperature: 60 °C / 40 °C

Pool Line PL-PGS

The characteristics and design parameters illustrated here were configured for illustrative purposes so that, in the absence of a heat pump, applicable values for meeting the ecodesign guideline and, consequently, the AHU energy efficiency class A+, are achieved. We are happy to supply you with a unit optimised to address your application. Get in touch with us!



	PGS-040	PGS-048	PGS-065	PGS-080
Width	1080	1280	1280	1590
Height	1865	1865	2140	2140
Length	3210	3210	4060	4060
A	785	785	1030	1030
B	1640	1640	2000	2000
C	785	785	1030	1030

All details in mm

- Compact units with cross-flow plate exchanger, all connections on top
- Air capacities of 4,000 m³/h to 8,000 m³/h
- Optionally available with a freely adjustable heat pump
- Housing design:
Very solid thermally broken 30 mm profiles with appropriate planking, indoor installation
- The latest generation of EC fans
- Unit control included, mounted laterally on the unit with optimised operating strategy

Exemplary depiction of different operating options:



Operation with support from heat pump



Operation with 100% outdoor air



Operation at high outdoor temperatures



Circulating air only (e.g. standby mode)



Erfüllt Verordnung (EU) 1253/2014 zur umweltgerechten Gestaltung von Lüftungsanlagen

<i>Application area</i> ¹⁾		PGS-040	PGS-048	PGS-065	PGS-080
Private pool	m ²	117	140	191	216
Indoor pool	m ²	90	108	145	166
Leisure pool	m ²	64	77	105	118
Wave pool	m ²	51	62	83	95
Therapy pool	m ²	28	35	47	53
Nominal flow rate	m ³ /h	4000	4800	6500	8000
Dehumidification capacity ²⁾	kg/h	25.9	31.1	42.1	51.8
Energy recovery					
Capacity ³⁾	kW	50	61	82	102
Efficiency acc. to DIN EN 308 ⁴⁾	%	76.5	76.5	77.5	77.5
Ext. pressure loss					
Outdoor air – supply air	Pa	400	400	400	400
Return air – exhaust air	Pa	400	400	400	400
Supply air fan					
Electrical system performance	kW	1.34	1.61	2.23	2.65
Motor rated power	kW	1.90	2.50	4.45	3.90
Return air fan					
Electrical system performance	kW	1.34	1.59	2.20	2.63
Motor rated power	kW	1.90	2.50	4.45	3.90
PWW ⁵⁾					
Capacity	kW	23	30	41	50
Heat pump (optional)					
Heat output	kW	13.0	16.0	23.0	27.0
Coefficient of performance	COP	5.0	5.0	4.9	5.2
Sound power level on					
Supply air connection	dB(A)	84	84	85	85
Return air connection	dB(A)	66	66	66	68
Outside air connection	dB(A)	65	65	65	67
Exhaust air connection	dB(A)	84	84	85	85
Electrical connection data at 400 V / 50 Hz (with heat pump)					
Voltage	V	400	400	400	400
Connected load	kW	8.5	11.5	15	15
Current consumption	A	18	23	30	30
Filter (min. filter class)					
Exhaust air filter DIN ISO EN 16890	Class ePM1	50%	50%	50%	50%
Outside air filter DIN ISO EN 16890	Class ePM1	50%	50%	50%	50%

¹⁾ based on VDI 2089 at $T_{\text{water}} = 28 \text{ °C}$ and $T_{\text{room}} = 30 \text{ °C} / 54\% \text{ RH}$, relative to the water surface

²⁾ acc. to VDI 2089 at nominal flow rate

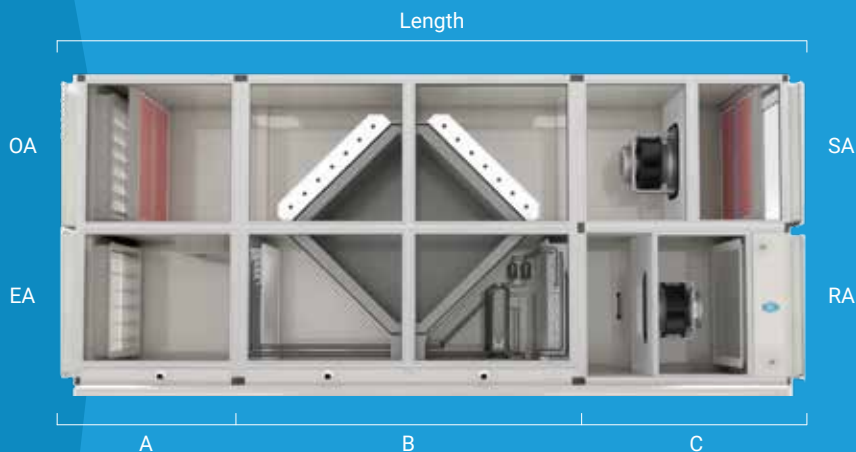
³⁾ at nominal flow rate for $T_{\text{outdoor air}} = -12 \text{ °C} / 90\% \text{ RH}$; $T_{\text{return air}} = 30 \text{ °C} / 54\% \text{ RH}$

⁴⁾ at nominal flow rate for $T_{\text{outdoor air}} = 5 \text{ °C} / 10\% \text{ RH}$; $T_{\text{return air}} = 25 \text{ °C} / 10\% \text{ RH}$

⁵⁾ Air intake temperature: 18 °C; water temperature: 60 °C / 40 °C

Pool Line HKG-GS

The characteristics and design parameters illustrated here were configured for illustrative purposes so that, in the absence of a heat pump, applicable values for meeting the ecodesign guideline and, consequently, the AHU energy efficiency class A+, are achieved. We are happy to supply you with a unit optimised to address your application. Get in touch with us!



	GS-4	GS-6	GS-9	GS-12	GS-16	GS18	GS-23	GS-30	GS35
Width	1080	1080	1590	1890	2240	2540	2850	3150	3460
Height	1760	2060	2060	2460	2740	2740	2740	3360	3360
Length	3850	4510	4660	5410	5470	5620	6020	6260	6660
A	750	860	860	1050	1050	1050	1050	1190	1290
B	1700	2100	2100	2500	2540	2540	2940	3040	3340
C	1400	1550	1700	1860	1880	2030	2030	2030	2030

All details in mm

- Compact units with cross-flow plate exchanger, all connections on the side
- Air capacities of 4,600 m³/h to 35,000 m³/h, without heat pump
- Optionally available with a freely adjustable heat pump
- Housing design: Very solid thermally broken 30 / 50 mm profiles with appropriate planking, indoor and outdoor installation (weatherproof). With 50 mm planking, execution is possible in T2 / TB1
- etaSmart AI unit control possible
- The latest generation fans

Exemplary depiction of different operating options:



Operation with support from heat pump

Operation with 100% outdoor air



Operation at high outdoor temperatures

Circulating air only (e.g. standby mode)



Erfüllt Verordnung (EU) 1253/2014 zur umweltgerechten Gestaltung von Lüftungsanlagen

<i>Application area</i> ¹⁾		GS-4	GS-6	GS-9	GS-12	GS-16	GS-18	GS-23	GS-30	GS-35
Private pool	m ²	130	180	260	350	470	550	670	880	1020
Indoor pool	m ²	100	130	200	260	350	410	510	660	770
Leisure pool	m ²	73	98	142	190	253	297	365	476	555
Wave pool	m ²	55	75	110	150	200	235	290	375	440
Therapy pool	m ²	32	44	64	85	114	133	164	214	250
Nominal flow rate	m ³ /h	4600	6200	9000	12000	16000	18500	23000	30000	35000
Dehumidification capacity ²⁾	kg/h	30	40	58	77	103	118	149	194	226
Energy recovery										
Capacity ³⁾	kW	58	78	113	150	198	231	295	381	438
Efficiency acc. to DIN EN 308 ⁴⁾	%	76.1	76.1	76.3	76.6	75.8	75.6	77.1	77.9	75.7
Ext. pressure loss										
Outdoor air – supply air	Pa	400	400	400	400	400	400	400	400	400
Return air – exhaust air	Pa	400	400	400	400	400	400	400	400	400
Supply air fan										
Electrical system performance	kW	1.67	2.21	3.12	3.78	5.40	6.32	7.71	10.25	12.33
Motor rated power	kW	1.9	2.9	5	5	6.9	10	10	15	15
Return air fan										
Electrical system performance	kW	1.65	2.15	3.1	3.67	5.32	6.24	7.58	9.97	12.03
Motor rated power	kW	1.9	2.9	5	5	6.9	10	10	15	15
PWW⁵⁾										
Capacity	kW	38	52	71	98	130	150	185	240	270
Heat pump (optional)										
Heat output	kW	7.5	10	12	17	24	27	33	43	49
Coefficient of performance	COP	6.0	5.9	6.0	6.0	6.0	6.0	6.2	6.2	6.3
Sound power level on										
Supply air connection	dB(A)	83.3	83.2	84.0	85.5	86.4	87.0	88.4	88.8	90.6
Return air connection	dB(A)	72.2	72.0	71.7	74.0	76.2	74.9	76.7	76.7	78.8
Outside air connection	dB(A)	66.7	67.0	66.2	68.0	70.2	69.3	70.7	71.1	72.8
Exhaust air connection	dB(A)	78.7	78.4	79.0	80.9	81.8	82.7	84.1	84.5	86.3
Electrical connection data at 400 V / 50 Hz (with heat pump)										
Voltage	V	400	400	400	400	400	400	400	400	400
Connected load	kW	6	11	13	14	21	26	27	38	40
Current consumption	A	11	20	24	27	39	48	50	68	72
Filter (min. filter class)										
Exhaust air filter DIN ISO EN 16890	Class ePM1	50%	50%	50%	50%	50%	50%	50%	50%	50%
Outside air filter DIN ISO EN 16890	Class ePM1	50%	50%	50%	50%	50%	50%	50%	50%	50%

¹⁾ based on VDI 2089 at $T_{\text{water}} = 28 \text{ °C}$ and $T_{\text{room}} = 30 \text{ °C} / 54\% \text{ RH}$, relative to the water surface

²⁾ acc. to VDI 2089 at nominal flow rate

³⁾ at nominal flow rate for $T_{\text{outdoor air}} = -12 \text{ °C} / 90\% \text{ RH}$; $T_{\text{return air}} = 30 \text{ °C} / 54\% \text{ RH}$

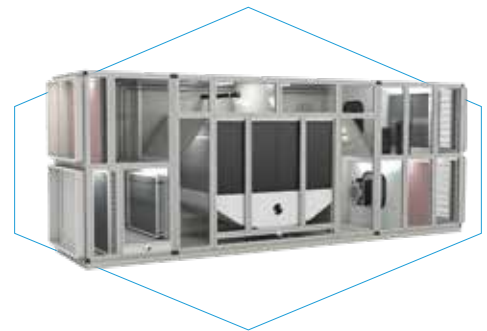
⁴⁾ at nominal flow rate for $T_{\text{outdoor air}} = 5 \text{ °C} / 10\% \text{ RH}$; $T_{\text{return air}} = 25 \text{ °C} / 10\% \text{ RH}$

⁵⁾ Air intake temperature: 15 °C ; water temperature: $60 \text{ °C} / 40 \text{ °C}$

FURTHER PRODUCTS

Blue Line

Highly customisable air handling and full air conditioning units with a central heat recovery system and maximum energetic efficiency. As heat recovery systems, all conventional systems can be integrated: plate exchangers, rotors, closed-loop systems and Accublock.



Slim Line

Manufactured in the thousands, the highly efficient and compact units for cooling rooms under high thermal stress have an energy advantage of over 70% when compared to purely recirculation or split units.



Free Line

Our Free Line units are freely adaptable and configurable air conditioning units for free cooling of server rooms or general dissipation of process heat. They can be perfectly adapted to a range of application areas.



ReCool Line

Recirculating air cooling units for cooling rooms under high thermal stress. Whatever the marginal conditions may be, place your trust in HANSA, the air conditioning specialist, and select the right recirculating air cooling unit for your needs.



Blue Line Hy

Clean germ-free air is essential for hygienic rooms. Air can be treated according to respective requirements with our Blue Line Hy air handling units.



Compact Line

The concept behind this product line enables cost-effective manufacturing with simultaneous flexibility and application freedom, thanks to modularisation. A higher quality standard and cost-effective operation are guaranteed.

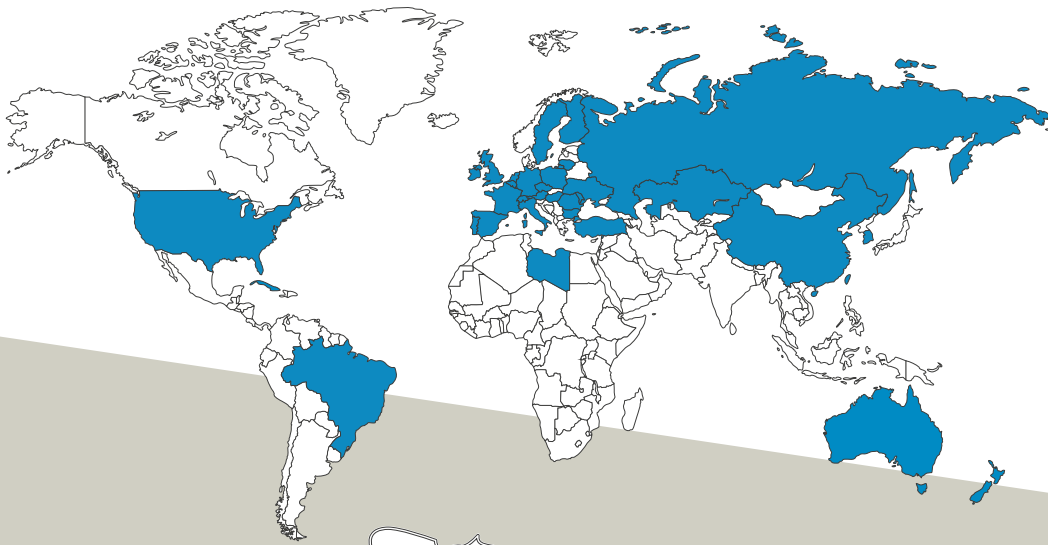


Special units

Special units encompass the LF-HY (food hygiene) and Hygro Line (recirculating air dehumidification) product series and Hepa Tower (400 and 1200) air handling units. You can obtain more precise information on all products on our website.



Our units around the world



LOCATIONS





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