

Envistar[®]

KNOW-HOW, CLIMATE AND COOLING

Flexible solutions
Integrated controller
Integrated cooling unit
Excellent operating economy
Simple installation



Air handling with the focus on LCC

IV Produkt

IV Produkt develops, produces and markets environmentally compatible and energy-efficient air handling products. We've been doing so since 1969.

Product development

We make strict demands on design ingenuity as we develop new products and production methods. Our aim is to save you time and the resources needed for installing, operating and maintaining our products.

We are also constantly involved in making our products energy efficient. The life cycle cost, i.e. the collective cost for procurement, operation, maintenance and minimal environmental impact, is always incorporated into our calculations when we develop new products and product selection software. Our goal is to offer you products with minimal life cycle cost.

Eurovent

Our products are tested by Eurovent according to EN 1886



and EN 13053 Standards. This assures you that the performance data that we present in

our specifications have been verified by an independent testing laboratory.
www.eurovent-certification.com

Quality and Environmental Awareness

Our quality management system is certified to ISO 9001. This guarantees clients and users alike prime quality and reliable performance throughout the useful life of our products.

We develop and fabricate our products according to the guidelines of our environmental management system, certified to ISO 14001.

The environmental compatibility of the products is rated on the basis of the materials they contain and the propensity of these materials for recycling.



IV Produkt Designer

Our product selection program is there to make your job easier – selecting the right air handling units for your application or for contacting our sales organisation.



IV Produkt's head office and production facilities are situated in Växjö, Sweden. The company is owned by IV Produkt Holding AB.



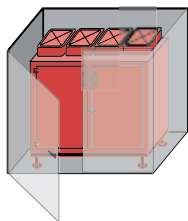
The New Envistar

The Envistar is a total solution designed to meet your requirements for low installation costs and reduced running costs. The main characteristics of the popular Envistar concept are:

- Integrated control equipment
- Speed-controlled direct-driven fans
- High-efficiency heat exchanger
- **StarCooler** cooling unit.



The Envistar Top is a small air handling unit that offers great performance and high quality. The unit is simple to install and to commission. The air handling unit does not require extra floor space.



Typical installation.

The Envistar Top saves you up to 2/3 of the floor space that traditional units.

- Available in 3 sizes
- Airflows: 0.12-1.00 m³/s Available with or without cooling unit
- Duct connections at the top for upward ductwork
- Rotary heat exchanger
- Installation space: only 2 m²
- Controller: Siemens Saphir.

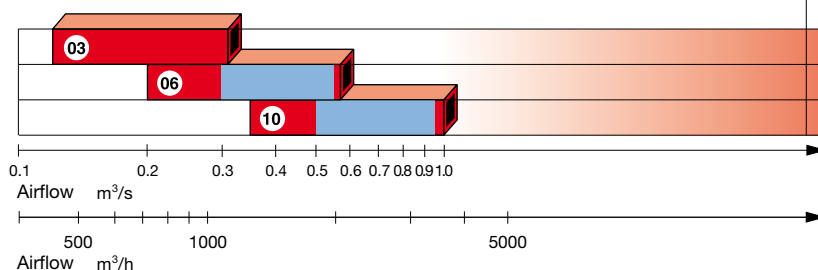


Top

Envistar Top

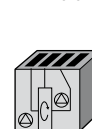
The airflows specified are applicable to 250 Pa external pressure, rotary heat exchanger, Class F7 filters and water-borne heating.

The blue-shaded area indicates the airflow range of the StarCooler cooling unit.

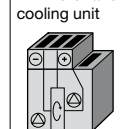


Delivery Version

With rotor



With rotor and cooling unit



●	●
●	●
●	●

Total Solutions...



Total solutions make your job easier whether you are a consultant, fitter, user or building manager.

The **Envistar Compact** is fabricated on the same platform as the Envistar Top. The greatest difference between the Top and the Compact version is that the Compact can be connected at its end walls or via two connections at the top making it easier to install ducting upwards to the attic, for instance.

- Available in 3 sizes
- Airflow range: 0.2-1.35 m³/s
- Available in 8 different connection options
- Rotary heat exchanger
- Available with or without cooling unit
- Available in an outdoor version
- Controller: Siemens Saphir.

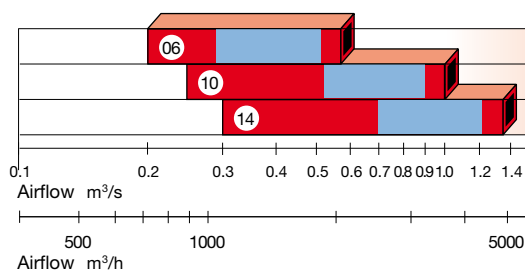


Compact

Envistar Compact

The airflows specified are applicable to 250 Pa external pressure, rotary heat exchanger, Class F7 filters and waterborne heating.

■ The blue-shaded area indicates the airflow range of the cooling unit.

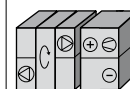


Delivery Version

With rotor



With rotor and cooling unit



●	●
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...that meet your needs.



Flex

The Envistar Flex is a modular air handling unit, available in 10 different combinations. It offers flexibility in most applications such as day nurseries, schools, office buildings, shops and industrial facilities.

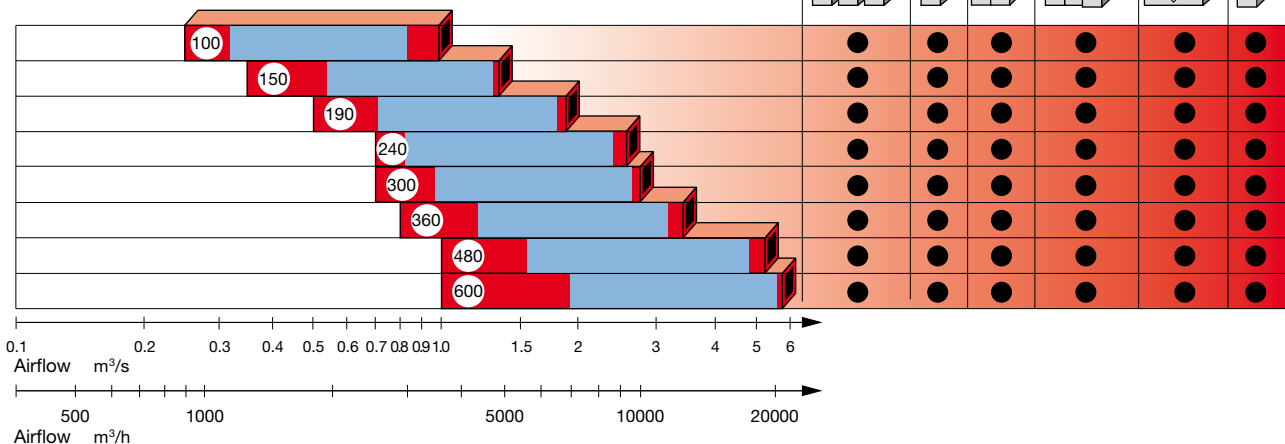
The unit can include an air recirculation section for keeping rooms warm at night.

- Available in 8 sizes
- Airflow range: 0.2-5.8 m³/s
- Rotary or plate heat exchanger
- Available with or without cooling unit
- Controller: Siemens Saphir.

Envistar Flex

The airflows specified are applicable to 250 Pa external pressure, rotary heat exchanger, Class F7 filters and waterborne heating.

■ The blue-shaded area indicates the airflow range of the StarCooler cooling unit.



The Envistar Top, Compact and Flex standard models offer different solutions designed to meet your needs for flexibility, low installation costs and reduced running costs - at the right price.

The StarCooler Cooling Unit

The StarCooler is a total solution that meets your needs for low installation costs and reduced running costs.

The popular StarCooler concept features:

- No outdoor installation
- Fully CE-labelled cooling unit
- Economical and reliable
- Short overall lengths for simple site transport and less installation space required
- Patent-pending evaporator with evaporative cooling.

YOUR TOTAL SOLUTION FOR COOLING

One supplier

One responsibility

Right price



StarCooler for the Envistar Top

- With cooling energy recovery
- Several capacity variants
- Capacity-regulation
- Silent compressor
- Condenser in the extract air for enhanced reliability in operation
- No annual inspection by authorities
- Type R134a refrigerant



StarCooler for the Envistar Compact

- Several capacity variants
- Capacity-regulation
- Condenser in the extract air for enhanced reliability in operation
- Type R134a refrigerant



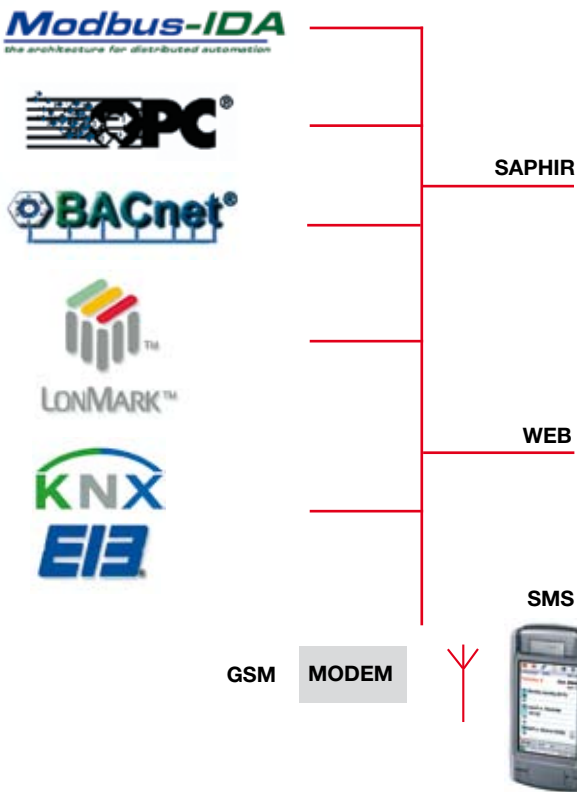
StarCooler for the Envistar Flex

- Also available with cooling recovery
- Several capacity variants
- Step-by-step capacity switching
- ACA function for variable airflow and reliable cooling operation at high extract air temperatures
- WCC function for operation in hot/humid outdoor climates
- Type R407C refrigerant.

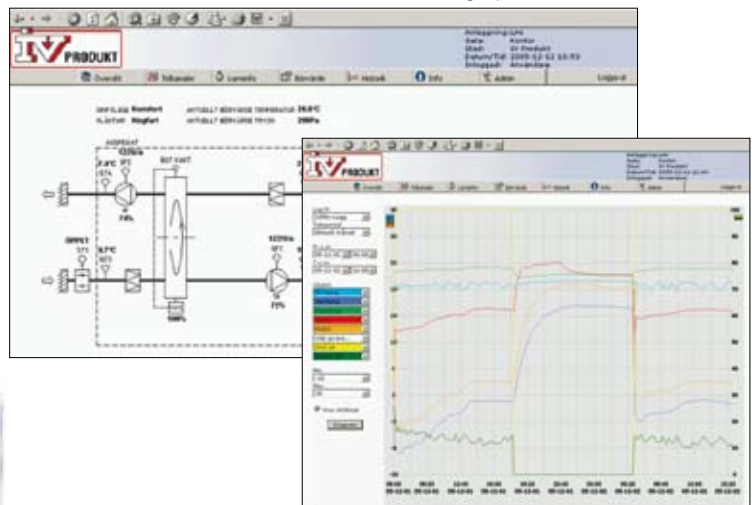
Integrated Controller

The Envistar air handling units are available with the Siemens Saphir controller. This combination offers you a complete, pre-programmed and performance-tested air handling unit with project-customized schedule, ready to be commissioned in

your application. The controller enables you to optimize airflow and temperature conditions by means of simple keying operations. All information is displayed in plain text in a hand-held terminal.



Typical web solution with dynamic flow chart and historic graph.



The controller has a processor equipped with a variety of functions and several communication possibilities:

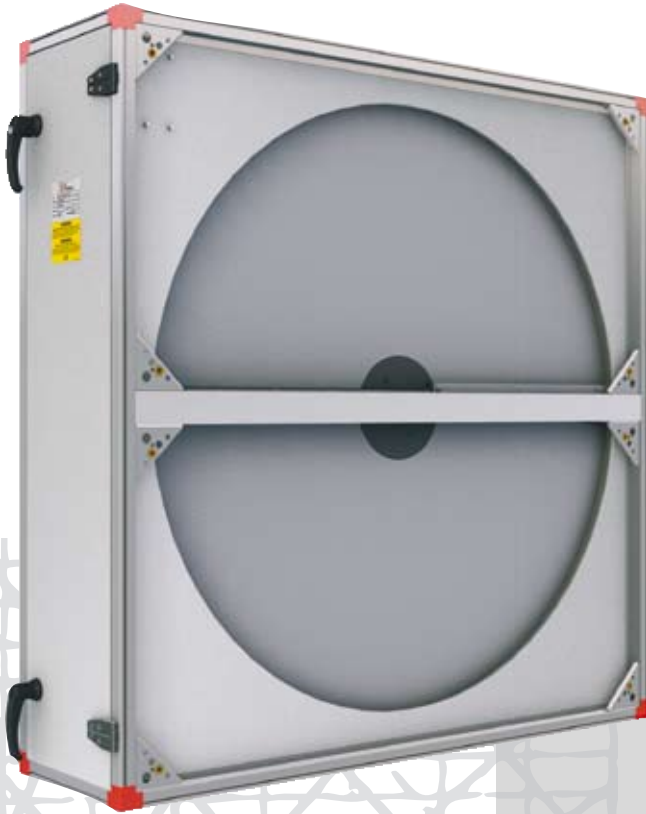
- Modbus RTU RS-485 (included as standard)
- Internet TCP/IP or modem for a built-in web server
- BACnet TCP/IP
- LON Works
- OPC server via TCP/IP or modem
- SMS alarms.



An Array of Functions

- Climate-customized control
- Pressure-controlled supply air fan, slave-controlled extract air fan
- Damper control boosting unit
- Fire damper exercising.

High-efficiency Rotor



The new Envistar units offer a wide selection of rotors for heat, cooling energy and moisture recovery that offer low pressure drop and high efficiency. The rotor is available in four different versions designed for optimal performance and minimal life cycle cost. All the rotors are steplessly speed controlled for maintaining constant temperature.

- Normal rotor
- Hygroscopic rotor for enhanced cooling recovery
- Plus rotor for increased efficiency
- Hygroscopic rotor in the Plus version.



Tested in the TÜV laboratory in Germany. We have validated our test results and can, in this way, prove the efficiency of our rotors.

The tests have been carried out by:

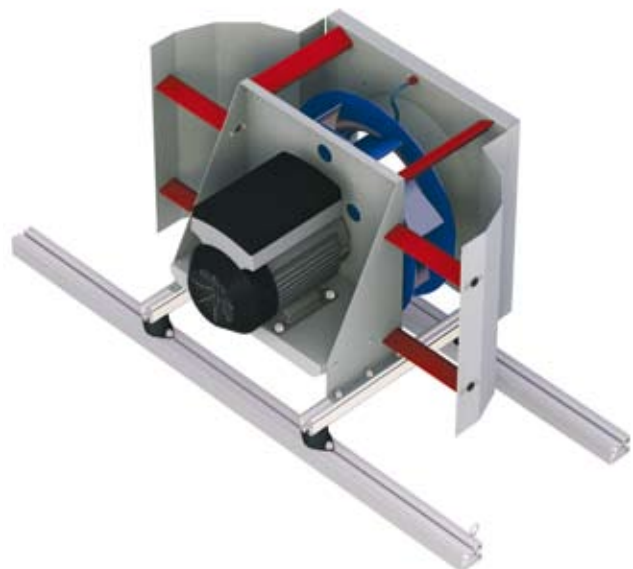
*The Technology Centre of RWTÜV Systems GmbH, Essen.
Refrigeration and Heat Pump Technology.*

Only this laboratory has been granted approval for measuring the performance of air handling units for Eurovent certification.

Effective Fans

The type Windstrong fans in the new Envistar are direct-driven, speed-controlled and have a built-in, rotating diffuser. The fans generate a low level of noise and perform with high efficiency. You can choose between fan and motor sizes.

The size 150-600 Envistar Flex units also have a patented spoiler and efficiency class 1-rated motors that provide extra high efficiency. All the fans are easily withdrawable from the unit casing to facilitate servicing.



Capacities and Technical Details

	Size	Width (mm)	Height (mm)	Length (mm)	Duct conn. (mm)	SFPv		Airflow *		Rec. external fuse for protecting the air handling
						Airflow (m³/s)	SFPv* (kW/(m³/s))	min. (m³/s)	max. (m³/s)	
Top	03	710	1325	1530	Ø 250	0.18	2.5	0.12	0.29	230V 10AT
	06	850	1390 **	1680	500 × 250	0.58	2.5	0.20	0.56	3×400V 10AT
	10	980	1390 **	1875	700 × 300	0.94	2.5	0.35	0.99	3×400V 10AT
Compact	06	850	1075	1530	500 × 300	0.58	2.5	0.20	0.56	3×400V 10AT
	10	980	1175	1605	700 × 400	0.94	2.5	0.25	0.99	3×400V 10AT
	14	1170	1375	1750	800 × 500	1.25	2.0	0.30	1.35	3×400V 10AT
Flex	100	980	1010	1640 ***	700 × 300	0.80	2.5	0.25	0.99	3×400V 16AT
	150	1080	1390	1940 ***	800 × 500	1.20	2.0	0.35	1.34	3×400V 16AT
	190	1360	1390	2160 ***	1000 × 500	1.72	2.0	0.50	1.89	3×400V 16AT
	240	1390	1610	2160 ***	1000 × 600	2.12	2.0	0.70	2.58	3×400V 16AT
	300	1575	1610	2160 ***	1200 × 600	2.60	2.0	0.70	2.77	3×400V 16AT
	360	1575	1980	2540 ***	1200 × 800	3.10	2.0	0.80	3.48	3×400V 25AT
	480	1950	1980	2840 ***	1400 × 800	4.22	2.0	1.00	5.24	3×400V 40AT
600	2160	2190	2840 ***	1600 × 800	4.90	2.0	1.00	5.76	3×400V 40AT	

* Applicable to 250 Pa external pressure, normal rotor (NO), class F7 filters and waterborne heating.

** The cooling unit adds 505 mm to the height of the air handling unit.

*** The length is equal to the sum of the lengths of the individual modules. The specified length refers to air handling unit combination 1 with 2 fans/filter sections and rotary heat exchanger. For details of the length of the other air handling unit combinations, see the Envistar Product catalogue or the IV Produkt Designer product selection computer program.

Technical Details for the StarCooler

	Size	Max. cooling capacity (kW) *				Recommended external fuse for protecting the cooling unit	
		StarCooler		StarCooler with cooling recovery **		Capacity var. 1	Capacity var. 2
		Capacity var. 1	Capacity var. 2	Capacity var. 1	Capacity var. 2		
Top	03	–	–	–	–	–	–
	06	–	–	8.9	10.0	3×400V 10AT	3×400V 10AT
	10	–	–	14.8	16.8	3×400V 16AT	3×400V 16AT
Compact	06	6.2	7.3	–	–	3×400 V 10 AT	3×400 V 10 AT
	10	10.6	12.8	–	–	3×400 V 10 AT	3×400 V 16 AT
	14	15.1	16.8	–	–	3×400 V 16 AT	3×400 V 16 AT
Flex	100	13.5	–	18.2	–	3×400V 16AT	–
	150	21.9	–	28.6	–	3×400V 20AT	–
	190	28.8	–	38.6	–	3×400V 25AT	–
	240	37.9	–	49.2	–	3×400V 25AT	–
	300	40.8	54.0	54.4	70.9	3×400V 35AT	3×400V 50AT
	360	49.6	66.7	65.5	86.5	3×400V 35AT	3×400V 50AT
	480	80.6	99.7	105.5	129.0	3×400V 50AT	3×400V 63AT
600	89.8	113.9	118.1	148.1	3×400V 63AT	3×400V 80AT	

* Applicable to $t_{\text{outdoor air}} +26\text{ }^{\circ}\text{C}$, RH 50% and $t_{\text{extract air}} +22\text{ }^{\circ}\text{C}$.

** Applicable to the hygroscopic rotor (HY).

Precise sizing can be carried out in the IV Produkt Designer product selection computer program.



Where to find IV Produkt

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