



VENTUS
S-type

2025



www.vtsgroup.com



01

VTS Group

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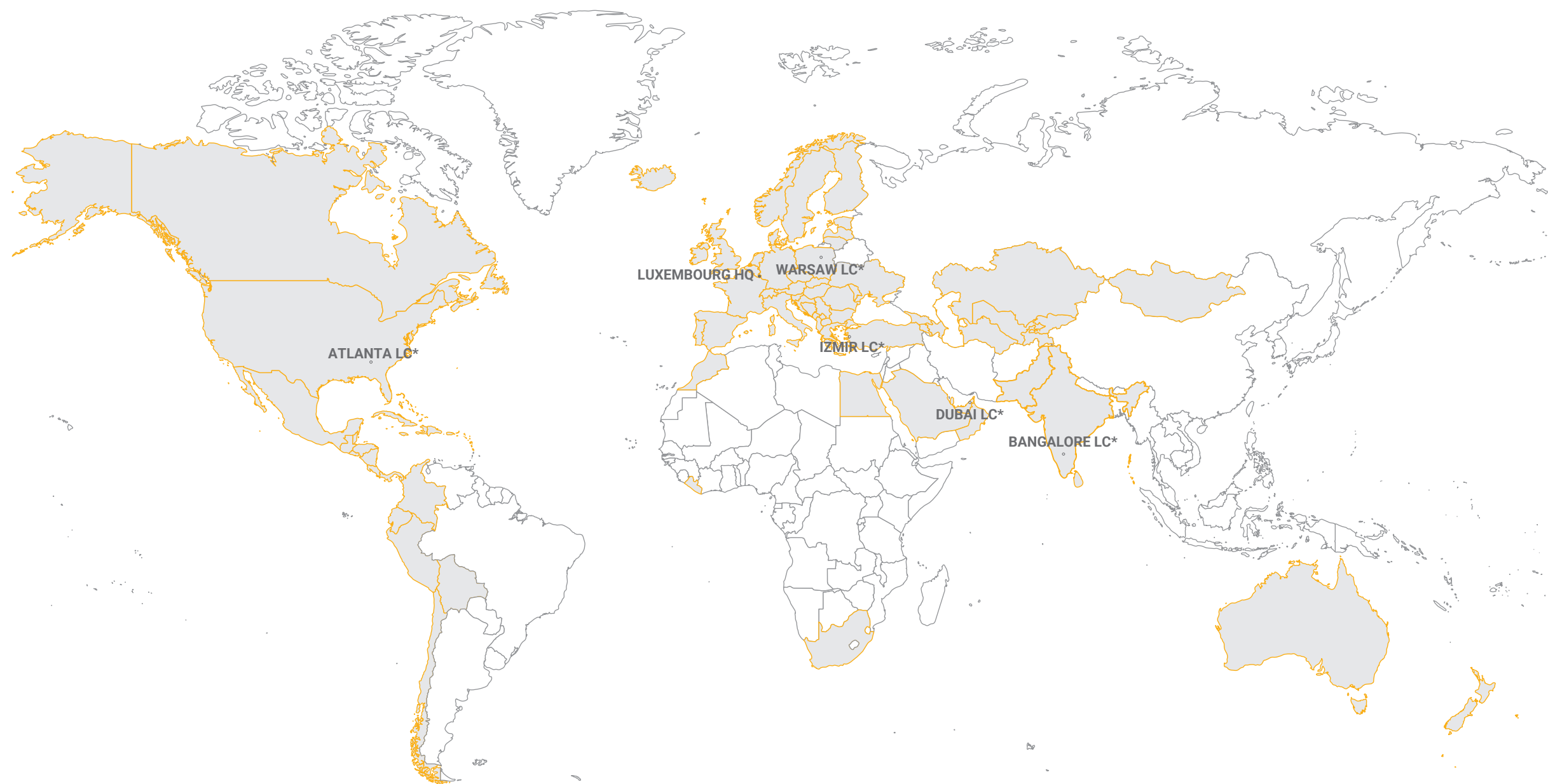
VENTUS S-TYPE

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VTG Group is a manufacturer of technologically advanced equipment for the HVAC industry. The company utilizes innovative technologies in project research, production, and logistics. Founded in 1989, the company remains a family-owned business.

OUR MISSION

AHU#1



* Production and logistics center

** Factory will confirm lead time based on the units selected.



THE 3 ELEMENTS OF SUCCESS

Consistently superior product quality. Unbeatable market prices. The shortest lead time. These three elements of market policy ensure that VTS is always one step ahead, in every region of the world.

VTS Group has established a highly efficient production and logistics network with six strategically located centers in **Atlanta, Dubai, Warsaw** (two facilities), **Bangalore**, and **Izmir**. By leveraging innovative manufacturing and distribution methods, we ensure optimized processes and the shortest delivery lead times, providing fast and reliable service worldwide.

VTS Group achieves the most competitive pricing while maintaining top quality through mass production of standardized devices, ensuring efficiency and consistency at scale.

VTS Group Quality Management System is based on ISO standards, ensuring consistency, reliability, and excellence across all our products and processes.

Through continuous improvement and innovation, we refine our designs, optimize production, and enhance logistics to provide durable, efficient, and high-performance HVAC solutions.

MARKET'S
BEST
TIME

LOGISTICS
6
CENTERS

\$ competitive
price

150 000
UNITS
SOLD ANNUALLY

Q the highest
quality

VENTUS S-type is a range of air handling units offered by VTS Group.

The product specification results from the effort of experienced design engineers and reflects Indian and MEA market requirements regarding high cooling performance. The S-type was developed with the use of the state-of-the-art technologies, advanced material engineering and innovative construction solution.

Due to this, the VENTUS S-type offer reliability and energy saving.

VTS **VENTUS**
S-type

from **883** to
5621 CFM
IN TOTAL CAPACITY

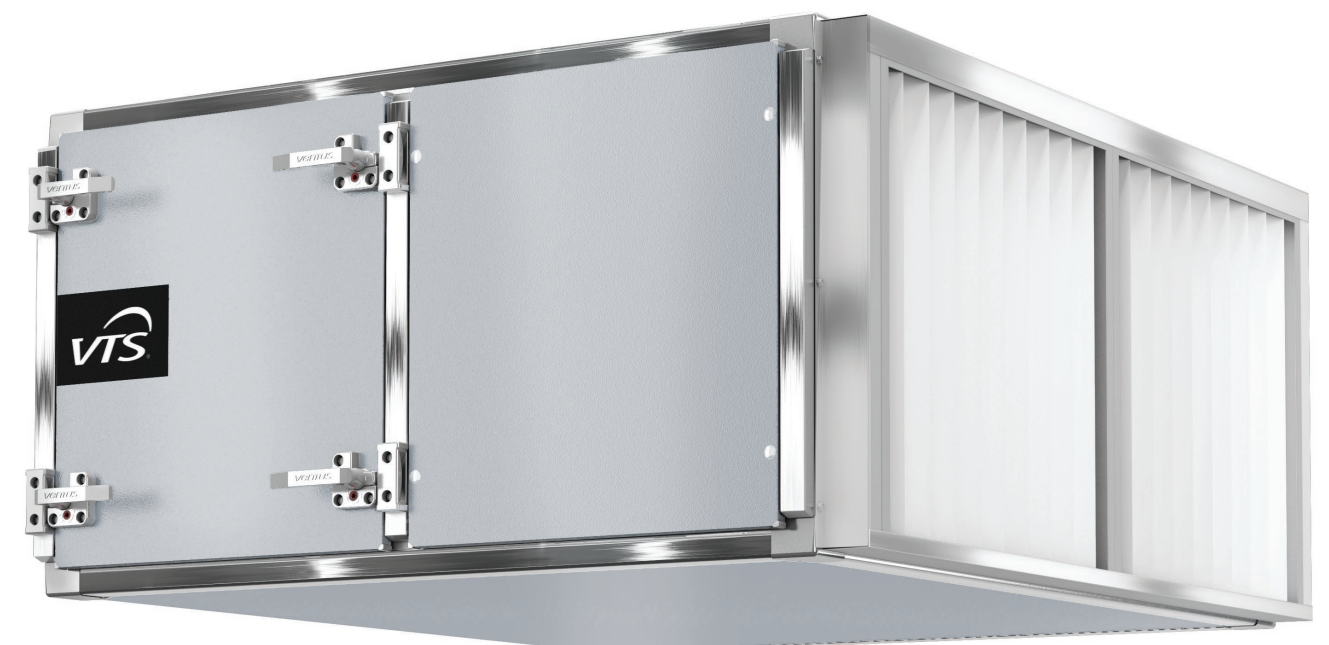
5
SIZES

**LOW HEIGHT
& WEIGHT**

EC **EFFICIENT
AND RELIABLE**
EC MOTORS

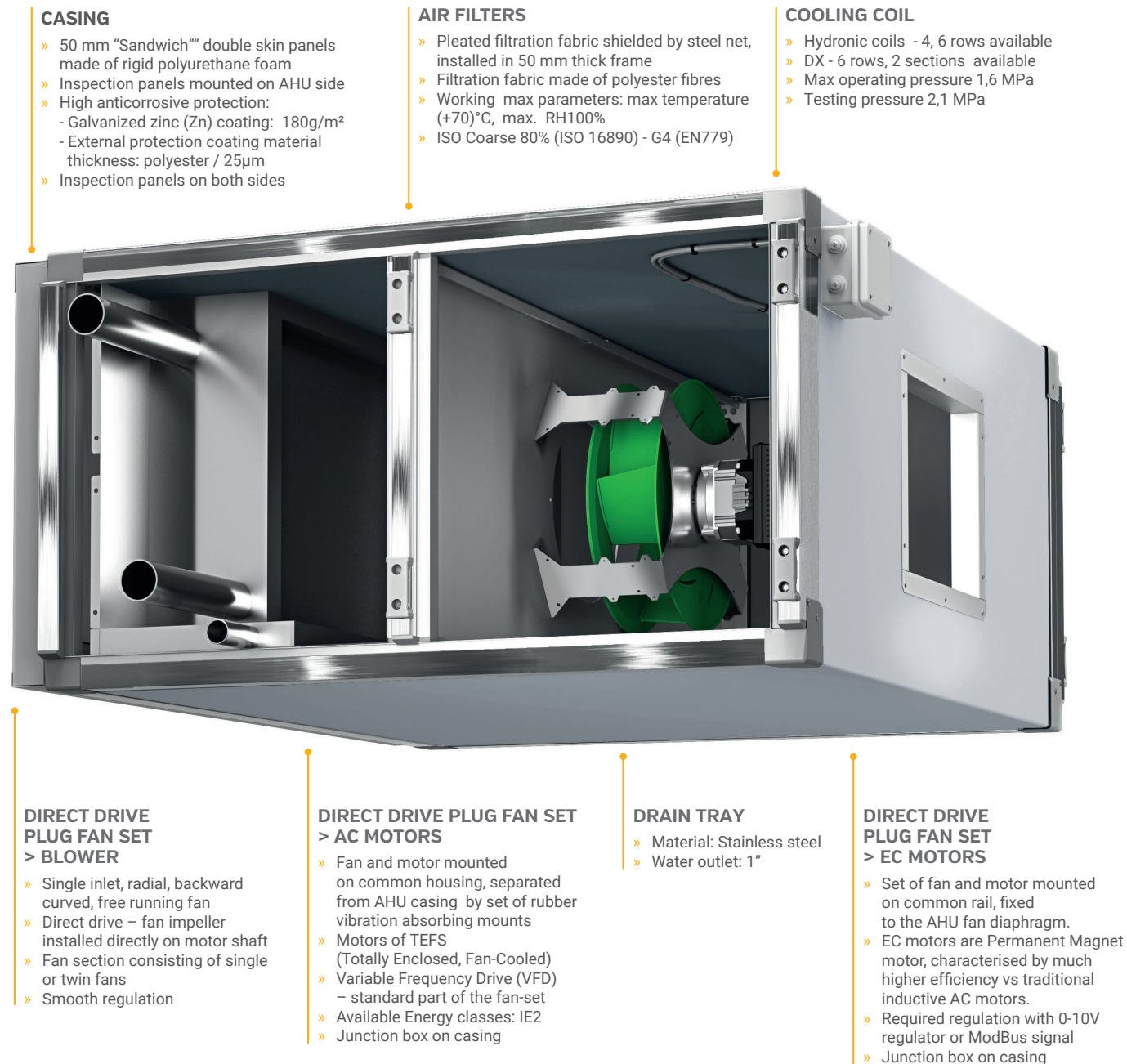
**WATER
TIGHTNESS**

**ATTRACTIVE
PRICE**





TECHNICAL SPECIFICATIONS



TYPICAL APPLICATION



residential buildings



industrial buildings



small businesses



sports facilities



retail and warehouses



garages and workshops



UNIT CASING:

Monocoque technology - a self supporting shell structure used in Formula 1 car and aviation. This is exactly how we design our products, therefore our units feature low weight and optimal height, are easy for transportation and further installation. Moreover double skin "sandwich" panels with 50 mm rigid polyurethane foam ensure best thermal insulation.

- » Thermal conductivity: PPU $\lambda = 0,022 \text{ W/mK}$
- » PPU density: $\rho = 42 \text{ kg/m}^3$
- » Casing heat transfer coefficient: $K = 0.6 \text{ W/m}^2\text{K}$
- » Casing mechanical strength: $+2500 \text{ Pa} \div 2500 \text{ Pa} < 2 \text{ mm}$
- » Casing tightness: $-400 \text{ Pa} - 0.05 \text{ l/sm}^2$
 $+700 \text{ Pa} - 0.13 \text{ l/sm}^3$
- » Anticorrosive protection:
 - Galvanized zinc (Zn) coating: 180g/m²
- » External protection coating material thickness: polyester 25µm
- » Inspection panels mounted on AHU side.

NO THERMAL BRIDGES

Our Monocoque casing is a framework free construction. This eliminates the problem of water condensation on the external AHU side - and therefore - no more of harmful water dripping from the ceiling.

DRAIN TRAY

They are fabricated from heavy stainless steel and are to prevent condensation.

COOLING COILS

Fabricated from copper tubes mechanically bonded with aluminum fins and are leak tested at 305 psig pressure.

Hydronic

- » Copper pipe: dimensions: 1/2"
- » Fin Type: corrugated fin
- » Row: 4 or 6 rows
- » Max operating pressure: 1,6 MPa
- » Testing pressure: 2,1 MPa
- » Equipped with air discharge valve and water outlet valve

> DX

- » Copper pipe: dimensions: 1/2"
- » Fin Type: corrugated fin
- » Row: 6 rows, 2 - sections
- » Max operating pressure: 1,6 MPa
- » Testing pressure: 2,1 MPa

DIRECT DRIVE PLUG FAN SET

Blower

- » Single inlet, radial, backward curved, free running fan.
- » Impeller made of SAN (styrene/ acrylonitrile) construction material with 20% glass fiber.
- » Direct drive – fan impeller installed directly on motor shaft.
- » Fan section consisting of single or twin fans.

AC Motors

- » Fan and motor mounted on common housing, separated from AHU casing by set of rubber vibration absorbing mounts.
- » Motors of TEFS (Totally Enclosed, Fan-Cooled).
- » Motors fitted for IEC standard.
- » Variable Frequency Drive (VFD) – standard part of the fan-set.
- » Available Energy classes: IE2
- » Available voltage: 1x230V/50Hz, 3x380V/50Hz, 3x400V/50Hz, 3x400V/60Hz.
- » Number of poles: 2.
- » Motor winding insulation class: F (fitted for VFD operations).
- » Bearings lifetime: L10= 20000h / L50 = 100000h.
- » Protection degree: IP55.
- » Working conditions: 60°C.

EC Motors

- » Set of fan and motor mounted on common rail, fixed to the AHU fan diaphragm.
- » EC motors are Permanent Magnet motor, characterised by much higher efficiency vs traditional inductive AC motors.
- » EC motors (Electronically Commutated) – where mechanical commutator switching the windings has been replaced with electronic one.
- » Change of revolutions is done by means of changing the frequency rate of windings switching (rate or magnetic field rotating).
- » Highly inductive permanent magnets have applied in EC motors used by VTS, which enabled to achieve high torque at relatively small dimensions.
- » Rated voltage: EC motors of nominal capacity equal or less 0,75kW - 1x230V AC.
- » Motor winding insulation class: F.
- » Protection degree: IP54. » Maximum working ambient temperature: 55°C.
- » Lifespan: - 70 000 hours at load not exceeding 70% of nominal capacity at ambient temperature not exceeding 35°C, - 30 000 hours at 100% capacity load at ambient temperature not exceeding 55°C.

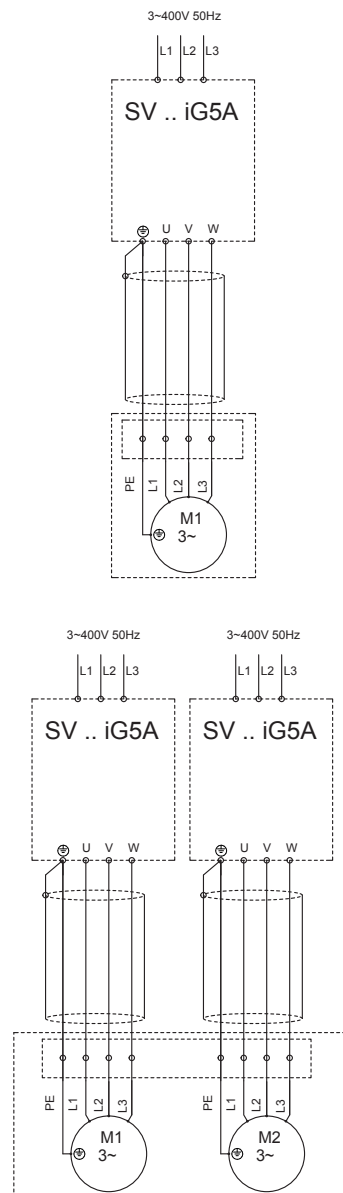
AIR FILTERS

- » All Units are provided with air filters.
- » Pleated filtration fabric shielded by steel net, installed in 50 mm thick frame.
- » Filtration fabric made of polyester fibres.
- » Working max parameters: max. temperature (+70)°C, max RH100%.
- » ISO Coarse 75% (ISO 16890) - G4 (EN779).

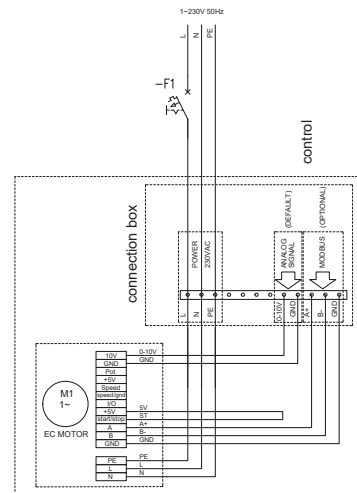


ELECTRICAL WIRING DIAGRAMS

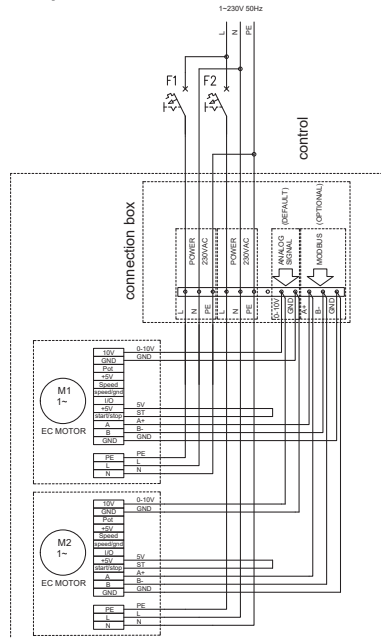
3 phase with VFD



1 phase - 1 EC MOTOR

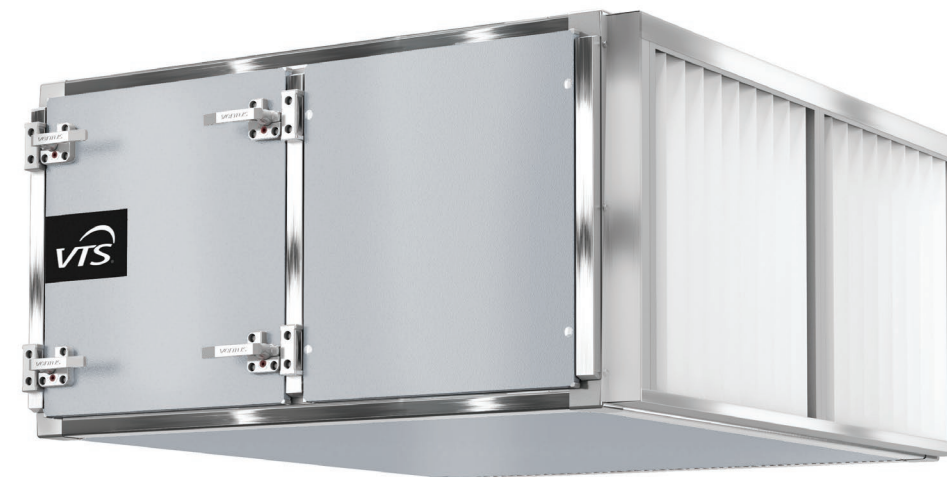


1 phase - 2 EC MOTOR

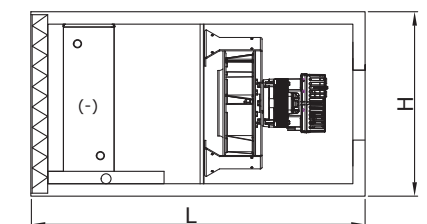
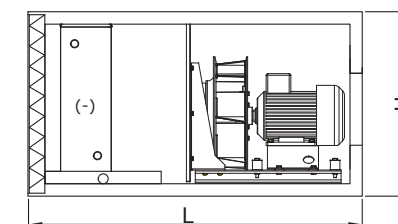
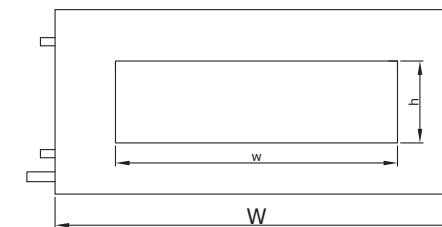


Unit size	Fan set with AC Motor									
	Model	Rated Output	Poles	Efficiency Class	Protection Grade	Rated Current at				
						415V/3ph/50Hz	230V/1ph/50Hz	380V/3ph/50Hz	400V/3ph/50Hz	400V/3ph/60Hz
	[-]	[kW]	[-]	[-]	[-]	[A]	[A]	[A]	[A]	[A]
SVS-35	VS 315	1,5	2	IE2	IP55 / F	3,1	5,54	3,36	3,1	3,19
SVS-50	VS 355	1,5	2	IE2	IP55 / F	3,1	5,54	3,36	3,1	3,19
SVS-70	VS 315 x 2	1,5 x 2	2	IE2	IP55 / F	6,2	11,08	6,72	6,2	6,38
SVS-85	VS 400 x 2	1,5 x 2	2	IE2	IP55 / F	6,2	11,08	6,72	6,2	6,38
SVS-100	VS 400 x 2	1,5 x 2	2	IE2	IP55 / F	6,2	11,08	6,72	6,2	6,38

Unit size	Fan set with EC Motor			
	Model	Rated Output	Protection Grade	Rated Current at 230V/1ph/50Hz
	[-]	[kW]	[-]	[A]
SVS-35	VS 315	0,75	IP54 / F	3,7
SVS-50	VS 315	0,75	IP54 / F	3,7
SVS-70	VS 315 x 2	0,75 x 2	IP54 / F	7,2
SVS-85	VS 315 x 2	0,75 x 2	IP54 / F	7,2
SVS-100	VS 315 x 2	0,75 x 2	IP54 / F	7,2



100%
units
factory tested



Unit size	Dimensions			Duct Connection	FAN	Motor	Weight *
	H	W	L	h x w	Model	Rated Output	
	[mm]				[-]	[kW]	[kg]
SVS-35	550	1171	1125	210 x 700	VS 315	1,5	162
SVS-50	615	1325	1125	310x550	VS 355	1,5	220
SVS-70	550	2025	1125	310x1200	VS 315 x 2	1,5 x 2	266
SVS-85	675	2025	1125	410x1400	VS 400 x 2	1,5 x 2	249
SVS-100	675	2225	1125	410x1400	VS 400 x 2	1,5 x 2	322

Unit size	Min Air Flow		Max Air Flow		Air Flow						
	CMH	CFM	CMH	CFM	CFM						
					0	1000	2000	3000	4000	5000	6000
SVS-35	1500	883	3500	2060							
SVS-50	2100	1236	4500	2660							
SVS-70	3000	1766	7000	4120							
SVS-85	3400	2001	8500	5003							
SVS-100	4200	2472	9500	5621							

Unit size	Coil Volume			Coil Connections			
	WCL4R	WCL6R	DX6R	WCL4R, WCL6R		DX6R	
	[Liters]			φD _{in}	φD _{out}	φD _{in}	φD _{out}
SVS-35	6,33	9,5	9,5	DN32	DN32	2x5/8"	2xØ28
SVS-50	8,24	12,36	12,36	DN50	DN50	2xØ22	2xØ35
SVS-70	12,08	18,13	18,13	DN50	DN50	2xØ22	2xØ35
SVS-85	15,44	23,16	23,16	DN50	DN50	2xØ22	2xØ35
SVS-100	17,23	25,84	25,84	DN50	DN50	2xØ22	2xØ42

* Weight present for units with integrated 6 rows water coil and fan section with AC motor



Manufacturing & Logistic Centre:

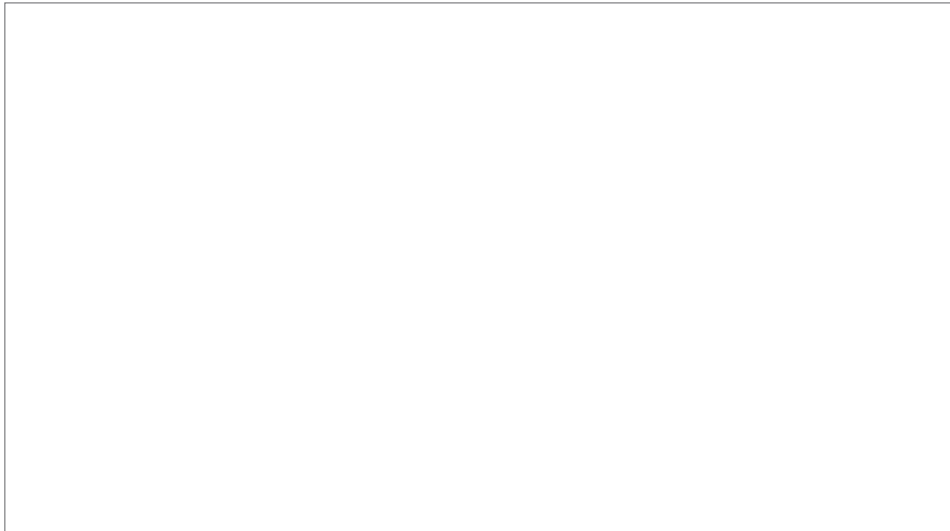
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Due to continuous improvement of the products, VTS reserves right to implement modifications.
Some of technical data and descriptions may vary from the actual products specification.
Before placing the order, please, confirm all technical specification with VTS sales representative.