



VENTUS S-type

2017



-  LOW HEIGHT & WEIGHT
-  LOW NOISE
-  WATER TIGHTNESS
-  ATTRACTIVE PRICE

VTS



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## VTS Group

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## VTS GROUP

is a manufacturer of technically advanced equipment for HVAC branch using innovative technologies in the sphere of project research, production and logistics.



**24/7**  
**IMMEDIATE** AVAILABILITY

\* Logistics center





**no. 1** AHU  
MANUFACTURER  
IN THE WORLD





## 3 CONSTITUENTS OF SUCCESS

Permanently highest quality of products. The best prices in the market The shortest delivery time. These three constituents of market policy ensure that VTS is always one step ahead, in every single place in the world.

Following the best practice in the automotive branch VTS created the network of 6 efficiently functioning production - logistics centers (**Atlanta, Dubai, Moscow, Shanghai, Warsaw, Mumbai**) and therefore guarantees the shortest delivery terms in the market regardless of the region in the world.

Mass scale of production of reduplicated devices makes it possible for VTS to offer them at the **most competitive price and retain their best quality.**

Multi-level quality control system enables VTS to offer the longest in the market, i.e. **5-year guarantee of the trouble free operation of equipment in the standard package.**

**24/7**  
**IMMEDIATE** AVAILABILITY

**6** LOGISTICS  
CENTERS  
PRODUCTION

**\$** competitive  
**price**

**85 000**  
SOLD EQUIPMENT  
UNITS ANNUALLY

**Q** the highest  
**quality**

**5** YEARS **guarantee**  
FOR EACH  
DEVICE



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.

# VENTUS

## S-TYPE

from **236** to **5886** CFM  
IN TOTAL CAPACITY

**6**  
SIZES



LOW **HEIGHT**  
& **WEIGHT**



LOW **NOISE**



WATER  
**TIGHTNESS**



ATTRACTIVE  
**PRICE**





## Technical Specifications

### CASING

Panel thickness:  
• 40mm.

Thermal conductivity PPU  $\lambda = 0,022$  W/mK

PPU density:  
•  $\rho = 42$ kg/m<sup>3</sup>.

Casing heat transfer coefficient:  
•  $K = 0.6$  W/m<sup>2</sup>K

Casing mechanical strength:  
•  $+2500$  Pa  $\div$   $2500$  Pa  $<$  2 mm

Casing tightness:

- -400 Pa - 0.05 l/sm<sup>2</sup>
- +700 Pa - 0.13 l/sm<sup>3</sup>

Anticorrosive protection:

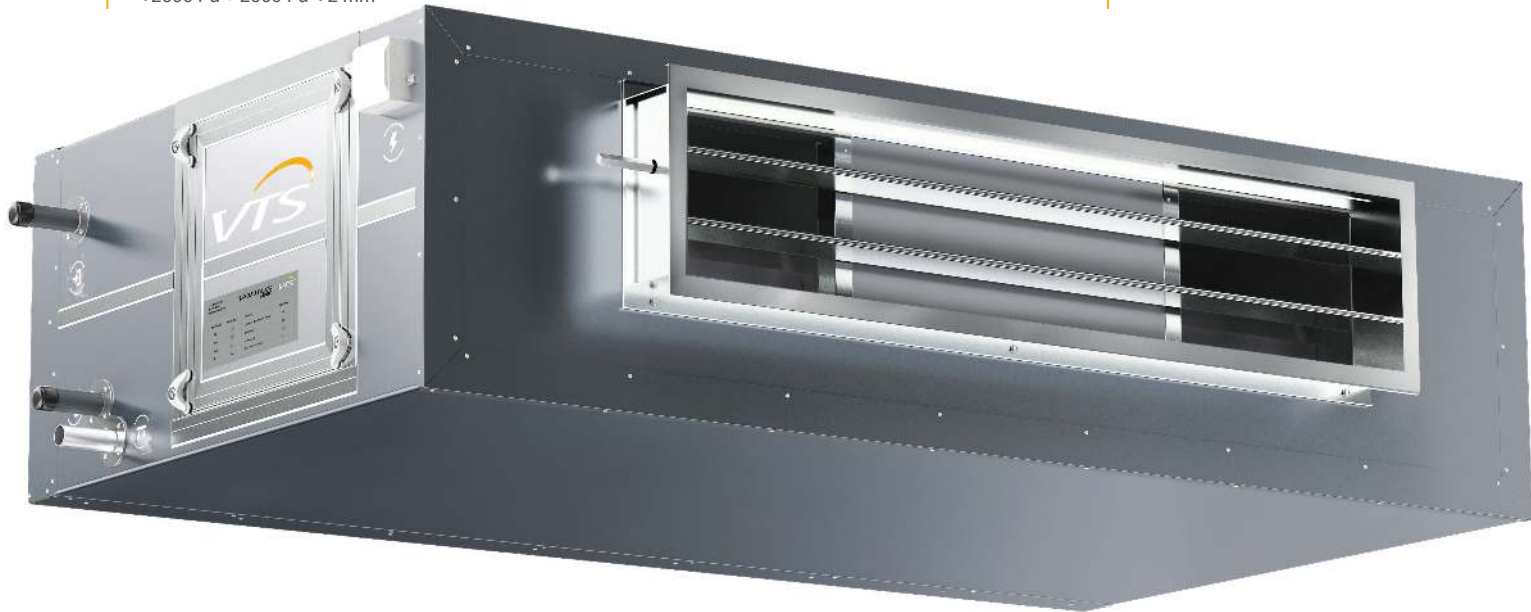
- Double skin panel - 275g/m<sup>2</sup> alvanized zinc (Zn) coating
- External protection coating material thickness: polyester / 25 $\mu$ m

### COOLING COIL

Copper pipe:  
• Dimensions: 1/2"

Fin

- Type: corrugated fin
- Row: 4 or 6 rows
- Inlet/outlet: 32/50mm
- Air discharge valve and water outlet valve



### BLOWER:

Blower material:

- Type: Forward Centrifugal
- Material: Galvanized steel

### MOTOR:

- Type: Single phase capacitor type
  - Insulation: B
  - Protection grade: IP20
- Type: three phase capacitor type
  - Insulation: F
  - Protection grade: IP-54

### FILTER:

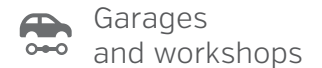
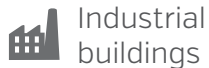
- Media: Washable synthetic
- Thickness: 50 mm
- Grade- G-4

### DRAIN TRAY:

- Material: Stainless steel
- Water outlet: 1"

 **100%**  
**units**  
tested in factory

## TYPICAL APPLICATIONS:







## Technical Specifications



### 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 40 mm rigid polyurethane foam ensure best thermal insulation.

### 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 350 Psig pressure.



### Blower:

Fans are forward curved centrifugal type of double inlet, statically and dynamically balanced to ensure quiet operation.



### Air Filters:

All Units are provided with 50 mm washable synthetic filter as a standard option.



### Fan Motors:

Motors are single or three phase with internal thermal protection. Fans are forward curved centrifugal type of double inlet, statically and dynamically balanced to ensure quiet operation. Excellent VFD compatibility with direct drive regulator option with 1Ø direct driven.



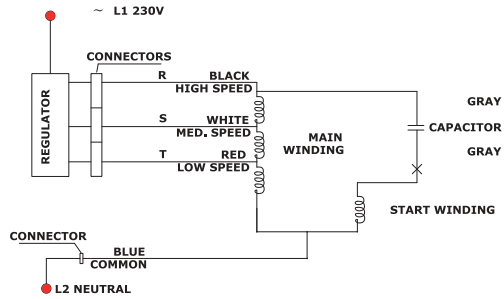
### Speed regulator:

1 phase motor only. Rotation speed for SVS-25 - 70: 1<sup>st</sup> gear (230V) – 1350 rpm, 2<sup>nd</sup> gear (180V) – 1060 rpm, 3<sup>rd</sup> gear (140V) – 825 rpm. Rotation speed for SVS-100: 1<sup>st</sup> gear (230V) – 900 rpm, 2<sup>nd</sup> gear (180V) – 705 rpm, 3<sup>rd</sup> gear (140V) – 550 rpm. Storage temperature: -40...+70°C, max. operating temperature: +55°C, dielectric withstand: 2.5 kV/50 Hz/1 min, min. switching voltage: 6 V.

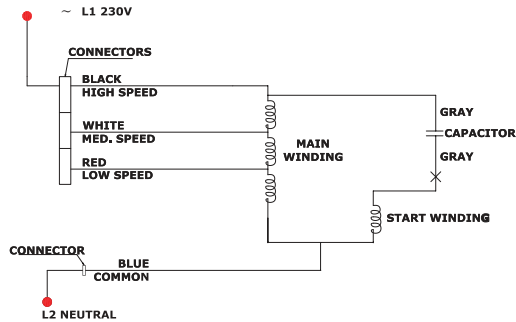


Electrical wiring diagrams and dimensions

1 phase with regulator

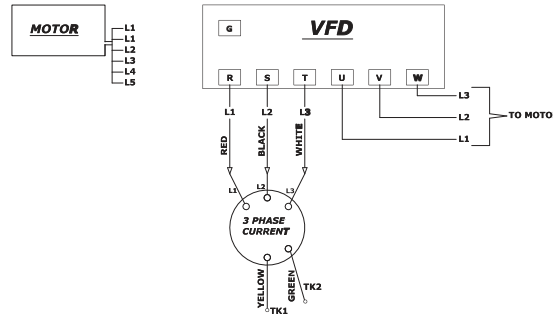


1 phase without regulator

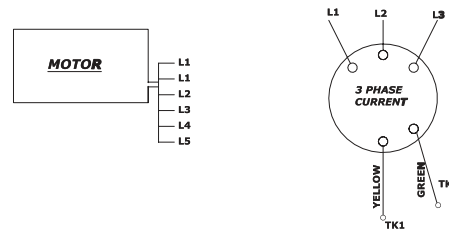


Note: L1 need to be wired as per required speed.

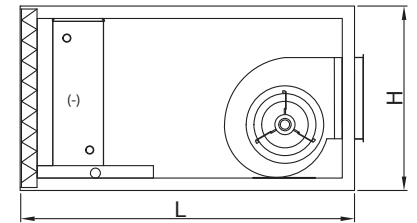
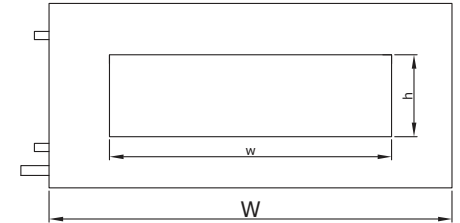
3 phase with VFD



3 phase without VFD



Dimensional drawings



DIMENSIONS

UNIT SIZE	DIMENSIONS			DIMENSIONS 1 PHASE MOTOR		DIMENSIONS 3 PHASE MOTOR		WEIGHT		CROSS SECTION INNER AREA	COIL VOLUME	
	[mm]			[mm]		[mm]		[kg]*		[m <sup>2</sup> ]	[Liters]	
	H	W	L	h	w	h	w	4-rows	6-rows	-	4-rows	6-rows
SVS - 25	530	870	1120	262	298	-	-	87	90	0,36	4,48	6,45
SVS - 35	530	1160	1120	289	331	264	342	98	106	0,49	6,33	9,50
SVS - 50	595	1300	1120	262	908	275	365	114	124	0,58	8,24	12,36
SVS - 70	530	2000	1120	289	1291	264	1294	166	181	0,86	12,08	18,13
SVS - 85	655	2000	1120	-	-	275	1270	187	205	1,10	15,44	23,16
SVS - 100	655	2000	1120	341	1455	275	1425	200	220	1,22	17,23	25,84



Wide airflow range - advanced performance regulation

### DATA FOR 1 PHASE MOTORS

Unit size	Min airflow		Max airflow		Motor Nominal Power	Fan-sets quantity	Rated current of each fan	Air flow		
	CMH	CFM	CMH	CFM	[kW]/Number of Poles	-	[A]	CFM		
SVS - 25	400	236	2500	1472	0,37/4	1	4,7	0 2500 5000		
SVS - 35	450	265	3500	2060	0,55/4	1	6,1	0 2500 5000		
SVS - 50	800	471	5000	2943	0,37/4	2	4,7	0 2500 5000		
SVS - 70	900	530	7000	4120	0,55/4	2	6,1	0 2500 5000		
SVS - 100	1000	589	10000	5886	0,736/4	2	7,6	0 2500 5000		

### DATA FOR 3 PHASE MOTORS

Unit size	Min airflow		Max airflow		Motor Nominal Power	Fan-sets quantity	Rated current of each fan	Air flow		
	CMH	CFM	CMH	CFM	[kW]/Number of Poles	-	[A]	CFM		
SVS - 35	1500	883	3500	2060	0,75/4	1	2,28	0 2500 5000		
SVS - 50	2100	1236	5000	2943	1,0/4	1	2,8	0 2500 5000		
SVS - 70	3000	1766	7000	4120	0,75/4	2	2,28	0 2500 5000		
SVS - 85	3400	2001	8500	5003	1,0/4	2	2,8	0 2500 5000		
SVS - 100	4200	2472	10000	5886	1,0/4	2	2,8	0 2500 5000		



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