



ARI VED

COMPRESSED AIR SOLUTIONS

Screw Air Compressor

ENERGY EFFICIENT ■ RELIABLE ■ SMART



FIXED SPEED SCREW AIR COMPRESSOR

- Advance High Efficiency Air End
- Intelligent Microcomputer Control System
- Unique Heat Removal & Cooling System
- Flexible Coupling Direct Drive
- Safe, Reliable And Efficient Motor

FIXED SPEED SCREW AIR COMPRESSOR

1. Advanced High Efficiency Air End

Adopts industry-leading screw air end, high efficiency and low rotating speed. With the third generation tooth type of rotor, cutting-edge geometric design-stable, reliable, energy saving and long service life.

2. Flexible Coupling Direct Driven

Adopts direct connection structure without any loss, transmission efficiency is 100%. Maintenance cost is low, disassemble is convenient, greatly save the downtime. Easy maintenance-air and maintenance only need to disassemble the air end, motor maintenance only need to disassemble motor, do not affect each other.

3. Intelligent Microcomputer Control System

Adopts intelligent control system to ensure fully automated intelligent operation, detect exhaust pressure, temperature and other field data, and control the exhaust pressure within the preset pressure range through the intake valve, so as to output stable pressure.

4. Safe, Reliable and Efficient Motor

Adopts unique low-speed motor, protection grade Ip55, insulation grade F, suitable for bad working conditions. High balance precision, high speed running smoothly.

5. Unique Heat Removal & Cooling System

Adopts advanced design, harmonica radiator, effectively increase the heat dissipation area, run faster and smoother, and take away the heat of the machine in time. The heat exchange effect of the same area is 30% higher than that of the traditional cooler. Even in the Asia-Pacific region with high humidity, the normal operation of the unit can be guaranteed.

FIXED SPEED SCREW AIR COMPRESSOR SPECIFICATION

Model		AVT-7.5F	AVT-11F	AVT-15F	AVT-18.5F	AVT-22F	AVT-30F	AVT-37F	AVT-45F	AVT-55F
Motor	Power (kw)	7.5	11	15	18.5	22	30	37	45	55
	Horsepower (hp)	10	15	20	25	30	40	50	60	75
Air displacement / Working pressure (M ³ / Min.Mpa)		1.2/0.7	1.6/0.7	2.5/0.7	3.2/0.7	3.8/0.7	5.3/0.7	6.8/0.7	7.4/0.7	10.0/0.7
		1.1/0.8	1.5/0.8	2.3/0.8	3.0/0.8	3.6/0.8	5.0/0.8	6.2/0.7	7.0/0.8	9.2/0.8
		0.9/1.0	1.3/1.0	2.1/1.0	2.7/1.0	3.2/1.0	4.5/1.0	5.6/1.0	6.2/1.0	8.5/1.0
		0.8/1.2	1.1/1.2	1.9/1.2	2.4/1.2	2.7/1.2	4.0/1.2	5.0/1.2	5.6/1.2	7.6/1.2
Air outlet diameter		DN 20	DN 25	DN 25	DN 25	DN 25	DN 40	DN 40	DN 40	DN 50
Lubricating Oil Volume (L)		10	16	16	18	18	30	30	30	65
Noise Level dB(A)		60±2	62±2	62±2	64±2	64±2	66±2	66±2	66±2	68±2
Driven Method		Direct Driven	Direct Driven	Direct Driven	Direct Driven	Direct Driven	Direct Driven	Direct Driven	Direct Driven	Direct Driven
Start Method		Y-△	Y-△	Y-△	Y-△	Y-△	Y-△	Y-△	Y-△	Y-△
External Dimensions	Length (mm)	950	1150	1150	1350	1350	1500	1500	1500	1900
	Width (mm)	670	820	820	920	920	1020	1020	1020	1260
	Height (mm)	1030	1130	1130	1230	1230	1310	1310	1310	1600
Weight (kg)		250	400	400	550	550	700	750	800	1750

FIXED SPEED SCREW AIR COMPRESSOR SPECIFICATION

Model		AVT-75F	AVT-90F	AVT-110F	AVT-132F	AVT-160F	AVT-185F	AVT-200F	AVT-250F
Motor	Power (kw)	75	90	110	132	160	185	200	250
	Horsepower (hp)	100	125	150	175	215	250	270	350
Air displacement / Working pressure (M ³ / Min.Mpa)		13.4/0.7	16.2/0.7	21.0/0.7	24.5/0.7	29.4/0.7	32.3/0.7	35.8/0.7	45.9/0.7
		12.6/0.8	15.0/0.8	19.8/0.8	23.2/0.8	28.3/0.8	31.9/0.8	34.4/0.7	44.0/0.8
		11.2/1.0	13.8/1.0	17.4/1.0	20.5/1.0	25.0/1.0	28.5/1.0	32.6/1.0	36.3/1.0
		10.0/1.2	12.3/1.2	14.8/1.2	17.4/1.2	21.1/1.2	24.8/1.2	28.0/1.2	33.8/1.2
Air outlet diameter		DN 50	DN 65	DN 65	DN 65	DN 65	DN 65	DN 80	DN 100
Lubricating Oil Volume (L)		65	72	90	90	90	180	180	200
Noise Level dB(A)		68±2	70±2	70±2	70±2	75±3	75±3	77±3	78±3
Driven Method		Direct Driven	Direct Driven	Direct Driven	Direct Driven	Direct Driven	Direct Driven	Direct Driven	Direct Driven
Start Method		Y-△	Y-△	Y-△	Y-△	Y-△	Y-△	Y-△	Y-△
External Dimensions	Length (mm)	1900	2450	2450	2450	3400	3760	2650	3000
	Width (mm)	1260	1660	1660	1660	2100	2100	1488	1740
	Height (mm)	1600	1700	1700	1700	2260	2260	1900	2100
Weight (kg)		1850	1950	2200	2500	3200	3200	4400	4700

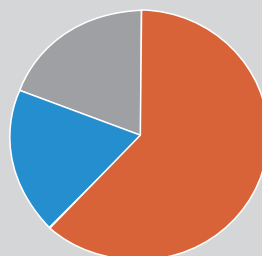
VARIABLE SPEED SCREW AIR COMPRESSOR SPECIFICATION

Model		AVT-7.5V	AVT-11V	AVT-15V	AVT-18.5V	AVT-22V	AVT-30V	AVT-37V	AVT-45V	AVT-55V
Motor	Power (kw)	7.5	11	15	18.5	22	30	37	45	55
	Horsepower (hp)	10	15	20	25	30	40	50	60	75
Air displacement / Working pressure (M ³ /Min.Mpa)		1.2/0.7	1.6/0.7	2.5/0.7	3.2/0.7	3.8/0.7	5.3/0.7	6.8/0.7	7.4/0.7	10.0/0.7
		1.1/0.8	1.5/0.8	2.3/0.8	3.0/0.8	3.6/0.8	5.0/0.8	6.2/0.7	7.0/0.8	9.2/0.8
		0.9/1.0	1.3/1.0	2.1/1.0	2.7/1.0	3.2/1.0	4.5/1.0	5.6/1.0	6.2/1.0	8.5/1.0
		0.8/1.2	1.1/1.2	1.9/1.2	2.4/1.2	2.7/1.2	4.0/1.2	5.0/1.2	5.6/1.2	7.6/1.2
Air outlet diameter		DN 20	DN 25	DN 25	DN 25	DN 25	DN 40	DN 40	DN 40	DN 50
Lubricating Oil Volume (L)		10	16	16	18	18	30	30	30	65
Noise Level dB(A)		60±2	62±2	62±2	64±2	64±2	66±2	66±2	66±2	68±2
Driven Method		Direct Driven	Direct Driven	Direct Driven	Direct Driven	Direct Driven	Direct Driven	Direct Driven	Direct Driven	Direct Driven
Start Method		PM VSD	PM VSD	PM VSD	PM VSD	PM VSD	PM VSD	PM VSD	PM VSD	PM VSD
External Dimensions	Length (mm)	950	1150	1150	1350	1350	1500	1500	1500	1900
	Width (mm)	670	820	820	920	920	1020	1020	1020	1260
	Height (mm)	1030	1130	1130	1230	1230	1310	1310	1310	1600
Weight (kg)		250	400	400	550	550	700	750	800	1750

VARIABLE SPEED SCREW AIR COMPRESSOR SPECIFICATION

Model		AVT-75F	AVT-90F	AVT-110F	AVT-132F	AVT-160F	AVT-185F	AVT-200F	AVT-250F
Motor	Power (kw)	75	90	110	132	160	185	200	250
	Horsepower (hp)	100	125	150	175	215	250	270	350
Air displacement / Working pressure (M ³ /Min.Mpa)		13.4/0.7	16.2/0.7	21.0/0.7	24.5/0.7	29.4/0.7	32.3/0.7	35.8/0.7	45.9/0.7
		12.6/0.8	15.0/0.8	19.8/0.8	23.2/0.8	28.3/0.8	31.9/0.8	34.4/0.7	44.0/0.8
		11.2/1.0	13.8/1.0	17.4/1.0	20.5/1.0	25.0/1.0	28.5/1.0	32.6/1.0	36.3/1.0
		10.0/1.2	12.3/1.2	14.8/1.2	17.4/1.2	21.1/1.2	24.8/1.2	28.0/1.2	33.8/1.2
Air outlet diameter		DN 50	DN 65	DN 65	DN 65	DN 65	DN 65	DN 80	DN 100
Lubricating Oil Volume (L)		65	72	90	90	90	180	180	200
Noise Level dB(A)		68±2	70±2	70±2	70±2	75±3	75±3	77±3	78±3
Driven Method		Direct Driven	Direct Driven	Direct Driven	Direct Driven	Direct Driven	Direct Driven	Direct Driven	Direct Driven
Start Method		PM VSD	PM VSD	PM VSD	PM VSD	PM VSD	PM VSD	PM VSD	PM VSD
External Dimensions	Length (mm)	1900	2450	2450	2450	3400	3760	2650	3000
	Width (mm)	1260	1660	1660	1660	2100	2100	1488	1740
	Height (mm)	1600	1700	1700	1700	2260	2260	1900	2100
Weight (kg)		1850	1950	2200	2500	3200	3200	4400	4700

Cost of regular air compressor



- Energy consumption
- Maintenance cost
- Purchase cost

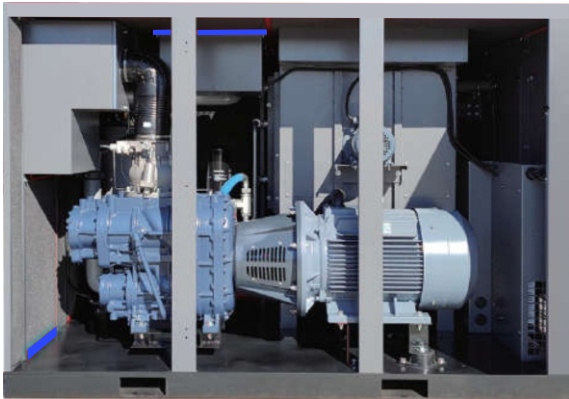
Cost of variable speed air compressor



- Energy consumption
- Maintenance cost
- Purchase cost
- Energy saved

Most of the cost in the life cycle of the air compressor is generated by the electricity it consumes. The power consumption of the compressor is closely related to the on-site air planning. The variable speed air compressor can not only ensure smooth production, but also save considerable electricity costs and achieve a win-win situation for the enterprise.

TWO- STAGE PM VSD AIR COMPRESSOR SERIES



TWO - STAGE PM VSD AIR COMPRESSOR SERIES

FEATURES

- Two - stage compression reduces the compression ratio of each stage, reduces internal leakage, improves volumetric efficiency, reduces bearing load and increases the life of the host.
- Two-stage PM VSD replaces single-stage compression and the displacement is increased by nearly 15%, which can achieve an additional 15% energy saving effect.
- The rotor adopts the latest patented rotor UV Profile, which has been refined by more than 20 procedures to ensure the accuracy, reliability and effectiveness of the rotor profile.
- Two-stage PM VSD air compressor mainframe is more efficient and more energy-saving. It can save up to 40% energy compared with ordinary industrial frequency machines.

ADVANTAGES

■ **More Energy Efficient**

Two- stage PM VSD rotor is directly driven through the gears, and each stage of the rotor can obtain the best speed. The Air end is always running at the best energy-saving speed. The frequency conversion soft-start reduces the energy consumption of the air compressor during start up. By controlling the pressure between stages, the compressor always works at the best efficiency point under different working conditions. Compared with single stage fixed speed air compressor, in principle, two-stage PM VSD air compressor can save 40% energy.

■ **More Stable**

There is no mechanical transmission failure, the motor and the male rotor adopt an integrated shaft structure and there is no need for coupling and gear transmission, eliminating the hidden danger of coupling and gear failure.

■ **More Efficient**

PM VSD motor + no transmission efficiency loss.
PM VSD motor has the advantages of energy saving and excellent performance.
The one-piece structure can reduce the efficiency loss of coupling and gear.

■ **More Comfortable**

Low noise and low vibration. No Motor and bearing noise, no gear noise, no coupling noise.

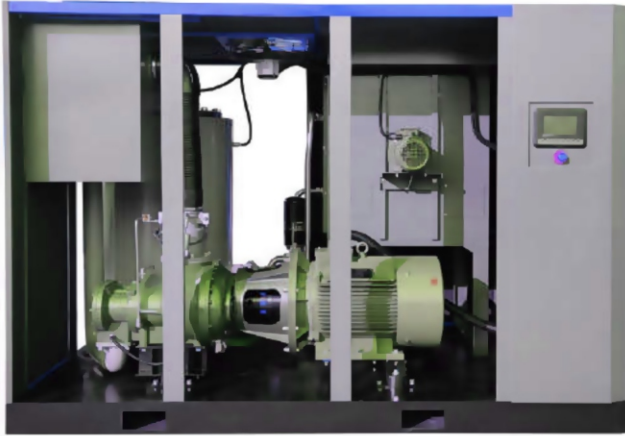
■ **More Impact**

The PM VSD motor is small in size and the integrated structure saves space.

TWO-STAGE VARIABLE SPEED AIR COMPRESSOR SPECIFICATIONS

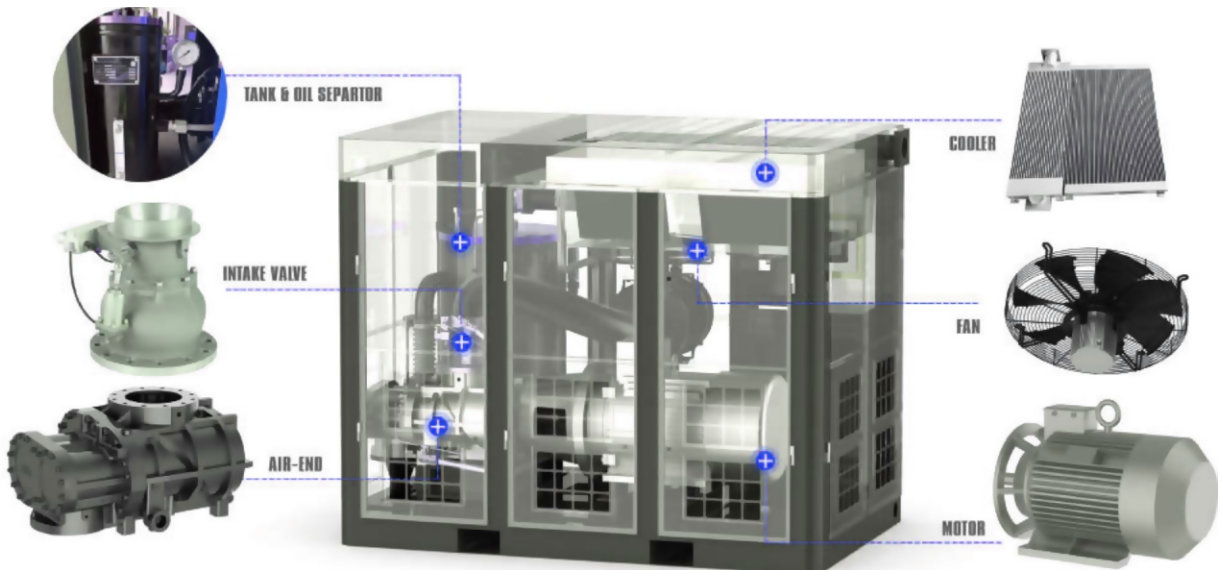
Model	Working Procedure	Capacity	Power		Noise	Air Outlet Pipe diameter	Net Weight	Dimension (mm)		
	Bar	M3	KW	HP	DB		kg	Length	Width	Height
AVTT-22V	8	1.85-4.1	22	30	65±3	G2	1500	1860	1180	1430
	10	1.65-3.4	22	30	65±3	G2	1500	1860	1180	1430
	13	/	22	30	65±3	G2	1500	1860	1180	1430
AVTT37V	8	2.3 - 7.7	37	50	65±3	G2	1800	1860	1180	1430
	10	1.9-6.9	37	50	65±3	G2	1800	1860	1180	1430
	13	/	37	50	65±3	G2	1800	1860	1180	1430
AVTT-45V	8	3.2-10.5	45	60	65±3	G2	2000	1860	1180	1430
	10	2.2-7.8	45	60	65±3	G2	2000	1860	1180	1430
	13	2.5-6.1	45	60	65±3	G2	2000	1860	1180	1430
AVTT-55V	8	3.9-13.2	55	75	65±3	G2	2450	2160	1350	1750
	10	3.1-10.7	55	75	65±3	G2	2450	2160	1350	1750
	13	2.6-8.8	55	75	65±3	G2	2450	2160	1350	1750
AVTT-75V	8	5.0-16.0	75	100	68±3	G2	2550	2160	1350	1750
	10	4.1-13.8	75	100	68±3	G2	2550	2160	1350	1750
	13	3.6-12.3	75	100	68±3	G2	2550	2160	1350	1750
AVTT-90V	8	6.0-20.1	90	120	70±3	DN 65	3250	2420	1530	1720
	10	5.2-17.3	90	120	70±3	DN 65	3250	2420	1530	1720
	13	4.8-15.9	90	120	70±3	DN 65	3250	2420	1530	1720
AVTT-110V	8	7.1-23.5	110	150	72±3	DN 80	3600	2650	1600	1850
	10	5.9-19.8	110	150	72±3	DN 80	3600	2650	1600	1850
	13	5.3-17.8	110	150	72±3	DN 80	3600	2650	1600	1850
AVTT-132V	8	8.0-28.1	132	175	74±3	DN 80	3700	2650	1600	1850
	10	7.3-24.3	132	175	74±3	DN 80	3700	2650	1600	1850
	13	6.1-20.2	132	175	74±3	DN 80	3700	2650	1600	1850
AVTT-160V	8	10.1-33.6	160	215	75±3	DN 100	4250	3350	1900	1950
	10	9.2-30.5	160	215	75±3	DN 100	4250	3350	1900	1950
	13	8.4-28.0	160	215	75±3	DN 100	4250	3350	1900	1950
AVTT-185V	8	12.4-38.7	185	250	76±3	DN 100	4550	3350	1900	1950
	10	10.4-34.8	185	250	76±3	DN 100	4550	3350	1900	1950
	13	9.7-32.3	185	250	76±3	DN 100	4550	3350	1900	1950
AVTT-200V	8	12.8-42.6	200	270	76±3	DN 100	5350	3350	1900	1950
	10	12.2-40.5	200	270	76±3	DN 100	5350	3350	1900	1950
	13	10.6-35.1	200	270	76±3	DN 100	5350	3350	1900	1950
AVTT-220V	8	14.2-47.3	220	300	78±3	DN 100	5650	3700	2060	2150
	10	12.8-42.5	220	300	78±3	DN 100	5650	3700	2060	2150
	13	12.0-17.4	220	300	78±3	DN 100	5650	3700	2060	2150
AVTT-250V	8	18.5-52.8	250	350	78±3	DN 100	6450	3700	2060	2150
	10	15.1-48.3	250	350	78±3	DN 100	6450	3700	2060	2150
	13	13.3-43.0	250	350	78±3	DN 100	6450	3700	2060	2150

PERMANENT MAGNET VARIABLE SPEED LOW-PRESSURE SCREW AIR COMPRESSOR



The host specially developed for low pressure conditions optimizes the screw profile and internal pressure to improve the efficiency of the host. Adopt the design idea of "large rotor, large bearing, low speed" to reduce noise and vibration, and increases the life and stability of the host. the tooth surface is processed by a rotor grinder create a high-precision rotor, which is the first guarantee for the high efficiency and stability of the host. Compared with the atmospheric pressure machine with the same air volume, it can save energy by more than 50%, and the industry is more energy-efficient. Protect the environment and reduce usage costs.

Low voltage + two-stage design, extremely energy-saving. The unique intermediate coolant jet curtain design reduces the temperature of the air, and the compression process approaches the most energy-saving isothermal compression. In principle, the two-stage compression saves 5%-8% of energy than the single compression. Two-stage compression, small compression ratio, less leakage, small bearing load, and greatly improved bearing life.



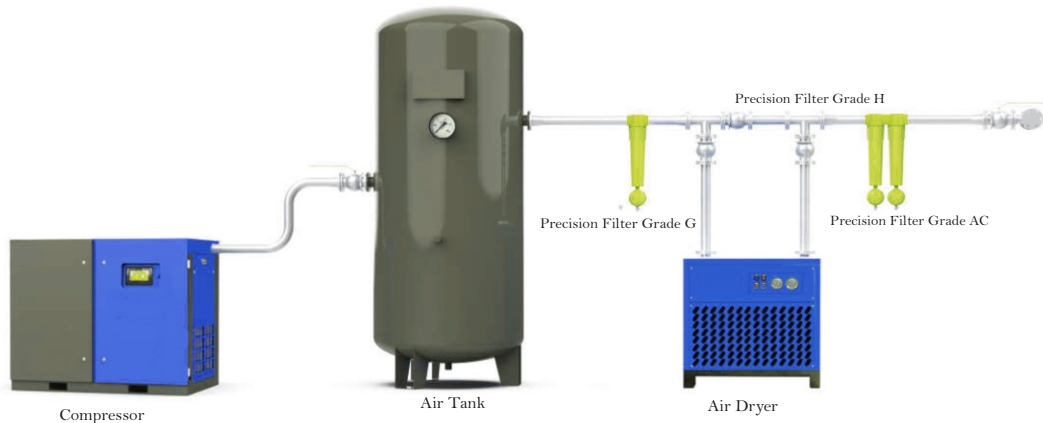
Single Stage Permanent Magnet Variable Speed Low-pressure Screw Air Compressor

Model	Working pressure		Capacity		Power		Noise	Air outlet pipe diameter	Net weight	Dimensions(mm)		
	bar	psig	m ³ /min	cfm	kW	hp	dB			kg	Length	Width
AVTL-22S	2.1-3.0	30-44	1.8-6.5	65-228	22	30	62±3	DN50	1330	1415	1030	1330
AVTL-37S	2.1-3.0	30-44	3.4-11.6	119-408	37	50	65±3	DN65	1420	1900	1200	1650
AVTL-55S	2.1-3.0	30-44	4.6-15.8	164-558	55	75	68±3	DN80	2100	2160	1500	1750
AVTL-75S	2.1-3.0	30-44	6.0-20.5	213-723	75	100	68±3	DN125	2700	2900	1830	2000
AVTL-90S	2.1-3.0	30-44	7.2-24.2	253-855	90	120	73±3	DN125	3800	2900	1830	2000
AVTL-110S	2.1-3.0	30-44	9.6-32.4	339-1142	110	150	74±3	DN125	4000	2900	1830	2000
AVTL-132S	2.1-3.0	30-44	11.3-37.9	398-1337	132	175	76±3	DN125	4800	2900	1830	2000
AVTL-160S	2.1-3.0	30-44	12.8-42.8	450-1513	160	215	76±3	DN150	4800	3400	2050	2250
AVTS-185S	2.1-3.0	30-44	19.1-63.8	672-2255	185	250	76±3	DN200	7000	4250	2280	2550
AVTS-200S	2.1-3.0	30-44	21.0-70.2	741-2480	200	270	76±3	DN200	8000	4250	2280	2550

Two Stage Permanent Magnet Variable Speed Low-pressure Screw Air Compressor

Model	Working pressure		Capacity		Power		Noise	Air outlet pipe diameter	Net weight	Dimensions(mm)		
	bar	psig	m ³ /min	cfm	kW	hp	dB			kg	Length	Width
AVTL-55T	4.0-5.0	58-73	4.3-14.5	150-512	55	75	65±3	DN65	3500	2160	11350	1750
AVTL-75T	4.0-5.0	58-73	5.8-19.5	203-689	75	100	68±3	DN65	3750	2420	1530	1720
AVTL-90T	4.0-5.0	58-73	7.2-24.2	252-854	90	120	75±3	DN80	3800	3100	1830	2000
AVTL-110T	4.0-5.0	58-73	8.2-27.5	288-971	110	150	78±3	DN80	4200	3100	1830	2000
AVTL-132T	4.0-5.0	58-73	10.2-34.5	362-1217	132	175	78±3	DN125	5000	3500	2150	2250
AVTL-160T	4.0-5.0	58-73	12.6-42.2	444-1490	160	215	78±3	DN125	5900	3500	2150	2250
AVTL-200T	4.0-5.0	58-73	15.7-52.5	553-1854	200	270	80±3	DN150	7800	4100	2280	2550
AVTL-220T	4.0-5.0	58-73	17.3-58.0	611-2048	220	300	80±3	DN150	8000	4100	2280	2550
AVTL-250T	4.0-5.0	58-73	18.8-63.1	665-2229	250	350	82±3	DN150	8100	4100	2280	2550
AVTL-280T	4.0-5.0	58-73	22.3-74.8	789-2642	280	375	82±3	DN150	8100	4100	2280	2550

COMPRESSED AIR PURIFICATION SYSTEM FLOW CHART



High Temperature Refrigeration Dryer Specification

Model	AVT-1.0-1.0	AVT-1.5-1.0	AVT-2.0-1.0	AVT-2.6-1.0	AVT-3.0-1.0	AVT-3.8-1.0	AVT-5.2-1.0	AVT-6.9-1.0	AVT-8.2-1.0
Capacity (Nm ³ /min)	1.0	1.5	2.0	2.6	3.0	3.8	5.2	6.9	8.2
Max. inlet air pressure (MPa)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Max. inlet air temperature (°C)	80	80	80	80	80	80	80	80	80
Voltage(V/Hz)	220/50	220/50	220/50	220/50	220/50	220/50	220/50	220/50	220/50
Power Consumption (KW)	0.4	0.5	0.55	0.9	0.96	1.1	1.2	1.4	1.5
Refrigerant	134A	134A	134A	R22	R22	R22	R22	R22	R22
Cooling Method	Air Cooling		Air Cooling		Air Cooling		Air Cooling		Air Cooling
Air Inlet & Outlet Diameter	Dn25	Dn25	Dn25	Dn25	Dn25	Dn40	Dn40	Dn40	Dn40
Air Connect Method	Internal Thread			Internal Thread		Internal Thread		Internal Thread	
External Dimensions (LxWxH) (mm)	750x450x700	750x450x700	750x450x700	780x500x780	780x500x780	900x500x900	900x500x900	950x600x950	950x600x950
Weight (kg)	46	48	49	66	67	93	95	108	109

Model	AVT-10.0-1.0	AVT-13.9-1.0	AVT-18.0-1.0	AVT-23.0-1.0	AVT-28.0-1.0	AVT-33.0-1.0	AVT-36.0-1.0	AVT-40.0-1.0
Capacity (Nm ³ /min)	10.0	13.9	18.0	23.0	28.0	33.0	36.0	40
Max. inlet air pressure (MPa)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Max. inlet air temperature (°C)	80	80	80	80	80	80	80	80
Voltage(V/Hz)	220/50	380/50	380/50	380/50	380/50	380/50	380/50	380/50
Power Consumption (KW)	2.10	3.20	3.20	4.30	4.80	5.70	6.20	10.10
Refrigerant	R22	R22	R22	R22	R22	R22	R22	R22
Cooling Method	Air Cooling		Air Cooling		Air Cooling		Air Cooling	
Air Inlet & Outlet Diameter	Dn50	Dn50	Dn65	Dn80	Dn80	Dn80	Dn80	Dn80
Air Connect Method	Internal Thread				FLANGE			Internal Thread
External Dimensions (LxWxH) (mm)	1100x600x1100	1200x600x1050	1050x650x1150	1550x800x1410	1550x800x1410	1700*1150*1510	1700*1150*1510	1850x1200x1600
Weight (kg)	138	155	175	210	220	360	380	600

