



Oil-Free Permanent Magnet VFD Screw Air Compressor 7.5-410kW

Our Product Introduction

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Basic Information

- Place of Origin: China
- Brand Name: Aipu
- Model Number: DH7-410kW
- Minimum Order Quantity: 1PC
- Price: negotiable
- Packaging Details: container
- Delivery Time: 10
- Payment Terms: tt
- Supply Ability: 100t/y



Product Specification

- Exhaust Pressure: 7-60barg
- Air Flow: 0.3-70m³/min
- Type: Oil Free Lubrication Permanent Magnet Variable Frequency Screw Air Compressor
- Rated Power: 7.5kW-410kW
- Noise Level: ≤80dB(A)
- Weight: 430-5200kg
- Highlight: **oil-free screw air compressor, permanent magnet VFD air compressor, 7.5-410kW industrial air compressor**

Product Description

Product Description:

The oil-free lubrication permanent magnet variable frequency screw air compressor is a new generation of high-efficiency, energy-saving, and environmentally friendly air compression equipment. It adopts innovative water lubrication technology and permanent magnet synchronous variable frequency drive to achieve 100% oil-free compression, perfectly meeting the strict air quality requirements of industries such as medical, food, and electronics. This product combines the advantages of high efficiency, energy saving, long service life, and intelligent control, and is an ideal alternative to traditional oil air compressors.

Why choose oil-free compressor:

Air quality plays a decisive role in many cases. If solid particles, water vapor, oil, and oil vapor appear in the compressed air system, it will lead to downtime, product damage, and even product recalls, damaging brand reputation. Worse still, it may also damage the credibility of consumers and products.

Improve reliability

Reliable product and system design can provide high-quality air, protect sensitive downstream gas equipment, reduce maintenance work, and extend equipment lifespan.

Improve productivity

The use of certified oil-free zero grade compressors ensures zero air pollution and eliminates the risk of product damage and waste.

Improve maintainability

Our oil-free equipment is specially designed for easy maintenance and repair, providing convenient access to consumable components.

Reduce lifecycle costs

The initial cost of an oil-free system is relatively high, but its operational and maintenance costs throughout its entire lifecycle are low, which can offset the two while maintaining higher air quality.

Oil free scroll compressor is suitable for your application:

Gardner Denver offers reliable oil-free products with a wide variety, always suitable for your industry and application. We will evaluate and recommend more suitable solutions to improve the productivity of the device, thereby providing a zero pollution risk final product.



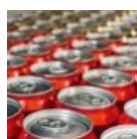
Hospitals, laboratories, universities



Pharmaceutical and Biotechnology



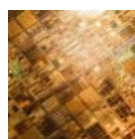
Medical equipment, plastics



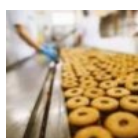
Canned food, beverages, brewing



Glass manufacturing



Electronics and semiconductors



Food processing



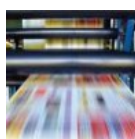
Electronics assembly



Textile industry



Bottling and distillation



Printing



Turf management

Advantages of oil-free lubrication air compressor:



No oil



Reliable

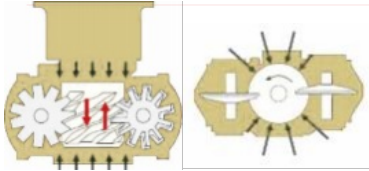


Energy conservation



Mute

Advantages of oil-free lubrication permanent magnet variable frequency screw air compressor:



Pure and oil-free

Using water lubrication cooling technology, no oil coolant is used in the compression chamber to produce truly oil-free compressed air.



Safe and reliable

A screw forms 12 compression chambers with two star wheels on the left and right, and rotates once to produce 12 air compression processes.

The two star wheels of a single screw air compressor are symmetrically distributed on both sides of the screw, ensuring balance force.

The axial and radial forces acting on the screw can cancel each other out, effectively suppressing the vibration source.

The rotor is balanced in terms of force, with small pulses and vibrations, resulting in more reliable performance and longer lifespan.

Efficient and energy-saving

When a single screw compressor works, each screw groove on the screw is used twice in one rotation, making full use of the screw groove space. Therefore, compared with other rotary compressors, its structural size is smaller.

The depth of the screw groove of a single screw becomes shallower with the increase of compression chamber pressure, and the depth is zero at the end of exhaust, so theoretically there is no clearance accumulation.

Using water as a coolant, the temperature during the compression process of the main engine is lower, the efficiency is higher, and the energy-saving effect is significant.

Silent and environmentally friendly

The motor and screw are directly connected to drive without a gearbox, eliminating high noise components.

The silent box type outer casing design effectively seals the noise inside the unit, keeping the overall operating noise at a low level.

Our oil-free lubrication permanent magnet variable frequency screw air compressor has the following advantages:

DH oil-free lubrication permanent magnet variable frequency screw air compressor adopts water lubrication cooling technology, and no oil coolant is used in the compression chamber, providing users with pure compressed air to meet various production needs.



Efficient host

Directly spray pure water into the compression chamber for cooling, without using oil coolant, truly oil-free compressed air.

The head rotor is made of stainless steel material, which will never rust.

The bearings adopt high-end stainless steel bearings to ensure the reliability, high efficiency, and low noise of water lubrication.

The host has no metal or metal meshing parts, the rotor is balanced in force, stable and reliable, and has a longer lifespan.

Rare earth permanent magnet variable frequency motor

The Ge Nan Deng Fu DH series water lubricated oil-free screw compressor is equipped with a rare earth permanent magnet variable frequency motor drive. Compared with AC asynchronous motors, rare earth permanent magnet motors have a simple structure, reliable operation, high power density, and wide speed range, making them an ideal power choice for high-efficiency and energy-saving air compressors.

Electric rotor

Permanent magnet rotor, with lower losses and increased efficiency by 5-10%

Small size and light weight

Compared to asynchronous motors of the same power, it is 1 to 2 machine base sizes smaller

Low noise

Reasonable slot pole coordination, magnetic field design, wider operating frequency, and lower operating noise

High starting torque

The starting torque and overload capacity of permanent magnet synchronous motors are one power level higher than asynchronous motors

Start without impact

Smooth soft start, starting current not exceeding twice the rated current

Wide speed range

The rotor does not require electrical excitation and can achieve low-speed high torque

Advantages of frequency conversion

Ordinary air compressors usually adjust the air intake to regulate the air volume, which keeps the compressor running at rated speed.

Even if the air volume decreases, the actual energy consumption will not decrease proportionally

The displacement of the variable frequency air compressor can be perfectly combined with the user's gas consumption

When purchasing an air compressor, the traditional cost (i.e. purchase cost and operation and maintenance cost) accounts for only 20% of the total cost, while energy consumption accounts for 80%. Compared with ordinary industrial frequency air compressors, DH series variable frequency air compressors save more than 30% energy

Since your investment and start-up, the DH series variable frequency air compressor has been saving you costs

Product functions and specifications

Laser cutting matched with air compressor

Model	Displacement m3/min	Pressure barg	Power kW	Port size inch	External dimensions (L x W x H)mm		Weight kg	Cooling water volume 30℃ (t/h)
					Forced air cooling	Water-cooling		
DH2VSD-16A	0.7-2.0	16	22	1"	1590 x 870 x 1500	-	640	
DH3VSD-16A	1.2-3.1	16	37	1.5"	1690 x 1000 x 1600	-	1010	
DH45VSD-16A/W	1.5-4.1	16	45	1.5"	2000 x 1300 x 1650	1590 x 950 x 1500	1110/980	9
DH75VSD-16A/W	2.5-6.7	16	75	2"	2700 x 1650 x 2020	2300 x 1250 x 1600	2000/1550	15

7-315kW product performance parameters

Model	Displacement m3/min	Pressure barg	Power kW	Port size inch	External dimensions (L x W x H)mm		Weight kg	Noise dB(A)
					Forced air	Water-cooling		
DH07VSD-10A	0.3-0.9	10	7.5	3/4"	1100 x 750 x 1320	-	430	57
DH11VSD-7A	0.7-1.7	7	11	3/4"	1100 x 750 x 1320	-	430	57
DH11VSD-8A	0.6-1.5	8	11	3/4"	1100 x 750 x 1320	-	430	57
DH11VSD-10A	0.5-1.3	10	11	3/4"	1100 x 750 x 1320	-	430	57
DH15VSD-7A	1.0-2.5	7	15	1"	1370 x 820 x 1450	-	570	57
DH15VSD-8A	0.9-2.2	8	15	1"	1370 x 820 x 1450	-	570	57
DH15VSD-10A	0.8-2.0	10	15	1"	1370 x 820 x 1450	-	570	57
DH18VSD-7A	1.3-3.2	7	18.5	1"	1370 x 820 x 1450	-	620	58
DH18VSD-8A	1.1-2.8	8	18.5	1"	1370 x 820 x 1450	-	620	58
DH18VSD-10A	1.0-2.5	10	18.5	1"	1370 x 820 x 1450	-	620	58
DH22VSD-7A	1.5-3.7	7	22	1"	1590 x 870 x 1500	-	640	60
DH22VSD-8A	1.4-3.4	8	22	1"	1590 x 870 x 1500	-	640	60
DH22VSD-10A	1.2-3.0	10	22	1"	1590 x 870 x 1500	-	640	60
DH30VSD-7A	2.1-5.3	7	30	1 1/2"	1690 x 1000 x 1600	-	980	61
DH30VSD-8A	1.9-4.7	8	30	1 1/2"	1690 x 1000 x 1600	-	980	61
DH30VSD-10A	1.7-4.3	10	30	1 1/2"	1690 x 1000 x 1600	-	980	61
DH37VSD-7A	2.5-6.2	7	37	1 1/2"	1690 x 1000 x 1600	-	1010	61
DH37VSD-8A	2.2-5.6	8	37	1 1/2"	1690 x 1000 x 1600	-	1010	61
DH37VSD-10A	2.0-5.0	10	37	1 1/2"	1690 x 1000 x 1600	-	1010	61
DH45VSD-7A/W	3.0-7.6	7	45	1 1/2"	2000 x 1300 x 1650	1590 x 950 x 1500	A1100/W1010	65
DH45VSD-8A/W	2.7-6.8	8	45	1 1/2"	2000 x 1300 x 1650	1590 x 950 x 1500	A1100/W1010	65
DH45VSD-10A/W	2.4-6.0	10	45	1 1/2"	2000 x 1300 x 1650	1590 x 950 x 1500	A1100/W1010	65
DH55VSD-7A/W	4.0-10.0	7	55	2"	2450 x 1550 x 1850	2300 x 1250 x 1600	A1500/W1300	67
DH55VSD-8A/W	3.6-9.0	8	55	2"	2450 x 1550 x 1850	2300 x 1250 x 1600	A1500/W1300	67
DH55VSD-10A/W	3.1-7.8	10	55	2"	2450 x 1550 x 1850	2300 x 1250 x 1600	A1500/W1300	67
DH75VSD-7A/W	5.2-13.0	7	75	2"	2700 x 1650 x 2020	2300 x 1250 x 1600	A2000/W1550	71
DH75VSD-8A/W	4.8-12.0	8	75	2"	2700 x 1650 x 2020	2300 x 1250 x 1600	A2000/W1550	71
DH75VSD-10A/W	4.5-10.0	10	75	2"	2700 x 1650 x 2020	2300 x 1250 x 1600	A2000/W1550	71
DH90VSD-7A/W	6.7-16.8	7	90	2 1/2"	3100 x 1600 x 2000	2450 x 1450 x 1700	A2600/W2250	72
DH90VSD-8A/W	6.0-15.0	8	90	2 1/2"	3100 x 1600 x 2000	2450 x 1450 x 1700	A2600/W2250	72
DH90VSD-10A/W	5.6-14.0	10	90	2 1/2"	3100 x 1600 x 2000	2450 x 1450 x 1700	A2600/W2250	72
DH110VSD-7A/W	8.0-20.0	7	110	3"	3500 x 1650 x 2100	2450 x 1450 x 1700	A2800/W2450	74
DH110VSD-8A/W	7.4-18.5	8	110	3"	3500 x 1650 x 2100	2450 x 1450 x 1700	A2800/W2450	74
DH110VSD-10A/W	6.4-16.0	10	110	3"	3500 x 1650 x 2100	2450 x 1450 x 1700	A2800/W2450	74
DH132VSD-7A/W	10.0-25.0	7	132	3"	4000 x 1700 x 2350	2450 x 1450 x 1700	A4500/W2450	77
DH132VSD-8A/W	9.2-23.0	8	132	3"	4000 x 1700 x 2350	2450 x 1450 x 1700	A4500/W2450	77
DH132VSD-10A/W	8.0-20.0	10	132	3"	4000 x 1700 x 2350	2450 x 1450 x 1700	A4500/W2450	77
DH160VSD-7A/W	10.8-27.0	7	160	3"	4000 x 1700 x 2350	2800 x 1500 x 1900	A4500/W2600	78
DH160VSD-8A/W	10.2-25.5	8	160	3"	4000 x 1700 x 2350	2800 x 1500 x 1900	A4500/W2600	78
DH160VSD-10A/W	9.6-24.0	10	160	3"	4000 x 1700 x 2350	2800 x 1500 x 1900	A4500/W2600	78
DH185VSD-7W	11.5-32.8	7	185	3"	-	2800 x 1500 x 1900	3000	78
DH185VSD-8W	10.5-30.0	8	185	3"	-	2800 x 1500 x 1900	3000	78
DH185VSD-10W	9.8-28.0	10	185	3"	-	2800 x 1500 x 1900	3000	78
DH200VSD-7W	11.5-34.0	7	200	3"	-	3600 x 1700 x 2030	3500	78
DH200VSD-8W	11.2-32.0	8	200	3"	-	3600 x 1700 x 2030	3500	78
DH200VSD-10W	10.2-29.0	10	200	3"	-	3600 x 1700 x 2030	3500	78
DH220VSD-7W	13.7-39.0	7	220	4"	-	3600 x 1700 x 2030	4000	78
DH220VSD-8W	13.3-37.0	8	220	4"	-	3600 x 1700 x 2030	4000	78
DH220VSD-10W	12.3-35.0	10	220	4"	-	3600 x 1700 x 2030	4000	78
DH250VSD-7W	14.5-41.5	7	250	4"	-	3600 x 1700 x 2030	4500	79
DH250VSD-8W	14.2-40.5	8	250	4"	-	3600 x 1700 x 2030	4500	79
DH250VSD-10W	13.3-38.0	10	250	4"	-	3600 x 1700 x 2030	4500	79
DH280VSD-7W	17.5-50.0	7	280	4"	-	4000 x 1800 x 2100	4700	79
DH280VSD-8W	16.5-47.0	8	280	4"	-	4000 x 1800 x 2100	4700	79
DH280VSD-10W	15.8-45.0	10	280	4"	-	4000 x 1800 x 2100	4700	79
DH315VSD-7W	19.6-56.0	7	315	5"	-	4000 x 1800 x 2100	5200	80
DH315VSD-8W	18.2-52.0	8	315	5"	-	4000 x 1800 x 2100	5200	80
DH315VSD-10W	16.8-48.0	10	315	5"	-	4000 x 1800 x 2100	5200	80

37-250kW low-pressure product performance parameters (pressure: 3/4 bar)

Model	Displacement m3/min	Pressure barg	Power kW	Port size inch	Noise dB(A)	External dimensions (L x W x H)mm	Weight kg	Cooling water volume 30℃ (t/h)
DH37VSD-3A/W	3.1-10.0	3	37	2 1/2"	65	2450x1550x1850(A/W)	1200	8
DH37VSD-4A/W	2.5-8.5	4						
DH45VSD-3A/W	4.2-13.5	3	45	3"	70	2450x1550x1850(A/W)	1500	9
DH45VSD-4A/W	3.1-10.0	4						
DH55VSD-3A/W	5.3-17.5	3				2700x1650x2020(A)	2200	10
DH55VSD-4A/W	4.1-13.5	4	55	4"	71	2700x1450x2000(W)		
DH75VSD-3A/W	7.1-23.0	3				2700x1650x2020(A)	2450	15
DH75VSD-4A/W	6.4-20.0	4	75	4"	75	2700x1450x2000(W)		
DH90VSD-3A/W	8.7-27.0	3				3500x2000x2250(A)	2600	17
DH90VSD-4A/W	7.5-24.0	4	90	5"	77	3600x1700x2030(W)		
DH110VSD-3A/W	10.5-33.8	3				3500x2000x2250(A)	3000	20
DH110VSD-4A/W	8.7-28.0	4	110	5"	78	3600x1700x2030(W)		
DH132VSD-3A/W	14.0-46.0	3				4000x2000x2350(A)	4500	25
DH132VSD-4A/W	10.8-35.0	4	132	6"	78	3600x1700x2030(W)		
DH160VSD-3W	16.2-52.0	3					5000	28
DH160VSD-4W	13.4-43.0	4	160	6"	79	3600x1700x2030		
DH185VSD-3W	18.0-58.0	3				3800x1700x2300	5100	35
DH185VSD-4W	16.0-45.0	4	185	6"	79	3600x1700x2030		
DH200VSD-3W	19.0-60.0	3	200	8"	79	3800x1700x2300	5200	37
DH200VSD-4W	19.0-48.0	4	200	6"	79	3600x1700x2030	5200	37
DH220VSD-4W	19.0-60.0	4	220	6"	79	3800x1700x2300	5300	39
DH250VSD-3W	35.0-70.0	3	250	8"	80	4100x2050x2350	5500	45

More efficient and energy-saving two-stage compression technology

In the two-stage compression process, the compression ratio of each stage is low, which correspondingly reduces the bearing load and extends the component life.

By using two-stage compression, the compression ratio of each stage is reduced to minimize internal leakage

By cooling between stages, the second stage compression is made closer to isothermal compression, achieving energy savings

Performance parameters of two-stage compression products (pressure: 8/10 bar)

Model	Displacement	Pressure barg	Power kW	Port size inch	Noise dB(A)	External dimensions	Weight kg	Cooling water
DH80VSD-2S-8A/W	7.0-20	8	55+37	2 1/2"	3500x1650x2100	3000x1600x2100	3500 w ind/3700 w ater	15
DH110VSD-2S-10A/W	7.0-20	10	75+45	2 1/2"	4000x2000x2350	3000x1600x2100	3500 w ind/3370 w ater	22
DH120VSD-2S-8A/W	8.4-24	8	75+45	2 1/2"	4000x2000x2350	3000x1600x2100	3550 w ind/3450 w ater	22
DH140VSD-2S-10A/W	8.4-24	10	75+65	2 1/2"	4000x2000x2350	3000x1600x2100	3600 w ind/3450 w ater	25
DH165VSD-2S-8W	10.5-30	8	90+75	3"	-	3000x1600x2100	3500	32
DH180VSD-2S-10W	10.5-30	10	90+90	3"	-	3000x1600x2100	3500	35
DH185VSD-2S-8W	12.6-36	8	110+75	4"	-	3600x2000x2100	4500	35
DH200VSD-2S-10W	12.6-36	10	110+90	4"	-	3600x2000x2100	4500	38
DH200VSD-2S-8W	14-40	8	110+90	4"	-	3600x2000x2100	4500	38
DH220VSD-2S-10W	14-40	10	132+90	4"	-	3600x2000x2100	4500	42
DH240VSD-2S-8W	15.75-45	8	132+110	4"	-	3600x2000x2100	4700	45
DH270VSD-2S-10W	15.75-45	10	160+110	4"	-	3600x2000x2100	4700	50
DH270VSD-2S-8W	17.5-50	8	160+110	5"	-	3800x2000x2100	5000	50
DH290VSD-2S-10W	17.5-50	10	160+132	5"	-	3800x2000x2100	5000	52
DH30VSD-2S-8W	21-60	8	220+110	5"	-	3800x2000x2100	5800	56
DH35VSD-2S-10W	21-60	10	220+132	5"	-	3800x2000x2100	5800	58

55-410kW medium voltage product performance parameters (pressure: 20/30/40/60bar)

Model	Displacement m3/min	Pressure barg	Power kW	Port size inch	Noise dB(A)	External dimensions (L x W x H)mm	Weight kg	Cooling water volume 30℃ (t/h)
DH65VSD-20A/W	1.8-6.0	20	37+15	1"	70	3000x1400x1700(A)	2000	12
DH60VSD-30A/W	1.8-6.0	30	37+22	1"	70	2900x1400x1700(W)	2000	12
DH75VSD-40A/W	1.8-6.0	40	37+37	1"	70		2100	15
DH75VSD-20W	3.0-10.0	20	55+22	1 1/4"	73	3500x1500x1730	2400	17
DH90VSD-30W	3.0-10.0	30	55+37	1 1/4"	73	3500x1500x1730	2300	17
DH120VSD-40W	3.0-10.0	40	75+45	1 1/4"	73	3500x1500x1730	2400	20
DH110VSD-20W	3.8-13.0	20	75+30	1 1/2"	75	3500x1500x1730	2500	22
DH120VSD-30W	3.8-13.0	30	75+45	1 1/2"	75	3500x1500x1730	2500	22
DH145VSD-40W	3.8-13.0	40	90+55	1 1/2"	75	3500x1500x1730	2650	24
DH130VSD-20W	5.0-16.0	20	90+37	1 1/2"	76	4000x1700x1800	3200	27
DH145VSD-30W	5.0-16.0	30	90+55	1 1/2"	76	4000x1700x1800	3200	27
DH185VSD-40W	5.0-16.0	40	110+75	1 1/2"	76	4000x1700x1800	3200	35
DH165VSD-20W	6.1-20.0	20	110+55	2"	76	4000x1700x1800	3600	35
DH185VSD-30W	6.1-20.0	30	110+75	1 1/2"	76	4000x1700x1800	3600	35
DH220VSD-40W	6.1-20.0	40	132+90	1 1/2"	76	4000x1700x1800	3800	38
DH200VSD-20W	7.0-24.0	20	132+65	2"	77	4000x1800x2100	4200	38
DH220VSD-30W	7.0-24.0	30	132+90	2"	77	4000x1800x2100	4200	38
DH270VSD-40W	7.0-24.0	40	160+110	2"	77	4000x1800x2100	4300	45
DH235VSD-20W	8.5-28.0	20	160+75	2 1/2"	78	4200x2000x2100	4600	46
DH270VSD-30W	8.5-28.0	30	160+110	2"	78	4200x2000x2100	4600	46
DH310VSD-40W	8.5-28.0	40	200+110	2"	78	4200x2000x2100	4600	55
DH290VSD-20W	9.5-36.0	20	200+90	2 1/2"	80	4500x2250x2200	5000	50
DH330VSD-30W	9.5-36.0	30	200+132	2 1/2"	80	4500x2250x2200	5000	60
DH380VSD-40W	9.5-36.0	40	220+160	2 1/2"	80	4500x2250x2200	5000	68
DH330VSD-20W	10.0-40.0	20	220+110	2 1/2"	80	4500x2250x2200	5000	65
DH380VSD-30W	10.0-40.0	30	220+160	2 1/2"	80	4500x2250x2200	5000	70
DH410VSD-40W	10.0-40.0	40	250+160	2 1/2"	80	4500x2250x2200	5000	85
DH295VSD-60W	10.0-20.0	60	185+110	DN40	80	4200x2100x2000	5000	58

Packing and Shipping:

Product Packaging:

The Oil free lubrication permanent magnet variable frequency screw air compressor comes in a sturdy cardboard box with the product image and specifications printed on the outside. Inside, the product is securely packaged with foam inserts to prevent any damage during transportation.

Shipping:

Our standard shipping time is 3-5 business days. For expedited shipping, please contact our customer service team. We ship via trusted carriers such as UPS, FedEx, and USPS and provide a tracking number for your convenience.

FAQ:

Q: What is the brand name of this product?

A: The brand name of this product is Aipu.

Q: What is the model number of this product?

A: The model number of this product is Oil free lubrication permanent magnet variable frequency screw air compressor.

Q: Where is this product made?

A: This product is made in China.

Q: Does this product have any certifications?

A: Yes, this product is certified by ce.ul.

Q: What is the minimum order quantity for this product?

A: The minimum order quantity for this product is 1pc.

Q: Is the price of this product negotiable?

A: Yes, the price of this product is negotiable.

Q: What is the packaging details for this product?

A: The packaging details for this product is container.

Q: How long is the delivery time for this product?

A: The delivery time for this product is 10 days.

Q: What are the payment terms for this product?

A: The payment terms for this product is tt.

Q: What is the supply ability of this product?

A: The supply ability of this product is 100t/y



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