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PRODUCT CATALOGUE



www.united-compressor.com 2022/A



CATALOGUE



About UCS

Oil-lubricated Screw Series

Oil-free Series

Compressed Air Purification Equipment Systems

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UCS Class 1 Smart Air Station

Through the application of highly efficient air compressor unit, low dew point multi-mode energy-efficient dryers, efficient piping distribution, comprehensive energy efficiency optimization, intelligent control system, equipment safety control, the wisdom of cloud services technology, formation of independent intellectual property rights of the energy efficiency Class 1 air compressor station system, realize the integration of the dynamic, intelligent control and safety control of energy efficiency.

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ABOUT UCS



Founded in 2002, Shanghai United Compressor Co., Ltd. is a vigorous company dedicated to developing and manufacturing industrial high-efficiency compressors under United OSD and United Compressor Systems (UCS) brands. The company is committed to becoming the world's leading compressed air solutions provider.

In 2013, UCS Group entered a joint venture with the World's Top 500 Enterprises - HITACHI Group (Japan). A well-known enterprise established in 1910 with a compressor production history of more than 100 years. The J/V cooperation not only complements each other's product vacancy but also enhances each other's ability to design, production, quality control and service.

UCS adheres to the research and development for "energy-saving, environmental protection" products. Successively launched a series of products of two-stage screw compressor, low-pressure compressor, vacuum pump, oil-free screw compressor, oil-free scroll compressor, oil-free screw blower, multistage centrifugal turbo compressor, magnetic suspension centrifugal blower, air suspension centrifugal blower and others. On top of that, UCS also design and produce customised compressors to satisfy the diverse needs of industries, including shield tunnelling machine, shotcrete manipulator machine, nitrogen compressor, vinyl chloride compressor, and others.



Shanghai United Compressor (Headquarters, R&D)





Wuxi Airthink Production Plant Phase I (Skid Intelligent Air Station, Centrifugal Compressor



United OSD & Hitachi ISC Joint Production Phase I (Screw & Scroll Compressor)

COMPRESSED AIR PURIFICATION FLOW CHART

Cleaning Sand Blasting Stamping Metalwork Pressure Forming Pneumatic Machinery . 9 Filter Grade B Filter Grade V Filter Grade A(Optional) Parts Drying Filter Grade A Precision Machinery 3 Electronic Industry Centrifugal Air Compressor Packing Printing 1.000 Filter Grade A/B Filter Grade AC UNITED SSOR SYSTEMS Spraying Electronics Textile Oil Free Screw Air Compressor Filter Grade AD Medicine Refrigerated Air Dryer Air Reservoir Tank Adsorptive Dryer Bioengineering Chemical Industry Consumables Filter Grade B/AC Filter Grade B Lithium Battery Oil Lubricated Screw Air Compressor Pharmacy Food Adsorptive Dryer

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Filter Grade V

Configuration Refers To ISO80753/GB13277.1-2017 Compressed Air Contaminants & Purity Classes



Architecture



OIL-LUBRICATED SCREW SERIES







06

Features

Oil-lubricated Screw Series

UCS has a series of screw compressors with the power of 5.5~630kW, FAD of 0.69~120m³/min and pressure range of 0.2~1.5MPa. At UCS, we also provide services such as design, manufacturing, training operation of the air compression station, technological improvement of energy-saving and customized types. The idea of wholeheartedly customer serving makes our pace steady and long.



High Efficiency Energy-Saving Air End

UCS air end highly recognized by the air compression industry with its sophisticated design and precision manufacturing.

With adopting large diameter and the balanced length-diameter ratio of the screw rotors, the optimized design based on the new 4th generation rotor moulded line subjected to higher-efficiency, so that the contact surface, contact line, leak triangle and hydrodynamic characteristics of rotors could reach the optimal performance, further improved the volume efficiency. This screw rotor then has high adiabatic efficiency and low power consumption.

By using imported large-sized heavy-duty bearing and unique bearing layout, at the same time of ensuring the bearing rigidity, the bearing capacity is much improved, service life lengthened, and its high reliability could keep even under the extreme condition.

The lip type shaft seal of the spiral groove fits with the shaft sleeve made of high-grade bearing steel, ensuring the wear resistance of the shaft seal and shaft sleeve. The shaft seal has a pumping function with high reliability and leakage resistance.



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Cabinet Structure Design

The cabinet structure divided into cooling and heating chambers which means better heat dissipation. All the functional components located in the cooling chamber to extend service life.

The rational layout design obtained national patent which integrating the electrical mechanism, making it easy to operate and could install without foundation on the site. Inside, the cooling and heating chambers do not affect each other and expand the internal space of the cabinet. The optimized internal air circulation ensures comprehensive cooling of all functional components, extending their service lives. On the outside, the closed type removable cabinet with built-in high-quality fire retardant and sound insulation sponges reduces noises effectively.

This structure design not only meets the environmental protection requirements but also easy to service.



Vulnerable parts

Air filter: With Donaldson professional product, the filtration mediums will be directly passed through without changing the air flow direction during filtration, reducing the pressure loss. It has more energy-saving performance, higher filtration precision and longer life than the traditional air filter.

Oil filter: Donaldson professional product is adopted. The durable filter material and precise filtration make the machine more stable.

Oil-air separator: It is customized by the European OEM. The special barrel design and the combined action of agaregated separator and oil return device ensure the exhaust oil content of the machine is less than and equal to 2PPM.



New temperature control filter combination valves

The patent designed temperature control filter combination valves integrate the new filter and temperature control value, so as to make the connection line in the machine more concise, reduce the leakage point, reduce the occurrence rate of fault, and more reduce the pressure drop, more energy-saving, solving the problems such as tube shatter crack and leakage during the split installation of the original filter base and temperature control value.



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Permanent magnet VFD characteristics

Application advantages

THE ENERGY SAVING IDEA LEADS THE FUTURE OF SCIENCE AND TECHNOLOGY!

New Generation Of Intelligent Controller



PLC+touch screen; Full-colour LCD touch screen, friendly human-machine interface; 24 hours full-time monitoring operation status; Intelligent operation; Standard with USB, COM interface, with upgradable function.

At any time and anywhere, monitor the air compressor maintenance, remote monitoring machine operation; At any time, deploy production operation, data collection, for energy-saving management.

FEATURES OF PERMANENT MAGNET MOTOR

> The motor efficiency is up to 96% and the power factor is 0.99, far exceeding the level 1 energy efficiency standard;

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> High coerced and high temperature resistant permanent magnets are adopted to ensure no demagnetization at 180°C;

> Independent fan-forced cooling, to ensure the motor long time

low-frequency safe operation;

> F grade insulation, 70K temperature rise design, adapt to the

high-temperature working condition of air compressor;

> Fully enclosed IP55 protection class can protect the internal clean environment of the motor and extend the life of permanent magnet and insulation

> Built-in temperature protection to protect winding insulator and permanent magnet.

FEATURES OF PERMANENT MAGNET INVERTER AIR COMPRESSOR

> Ultra-low temperature rise design, to allow compressor long-term low-frequency stable operation;

> Adopting the open-loop vector control system, the control is faster and the speed regulation is more accurate;

> When the frequency is reduced by more than 50%, the compressor unit can still operate efficiently;

> Stable pressure accurately controls pressure fluctuation within 0.01mpa; > With soft-start characteristic, avoid start current shock, reduce start energy consumption.







Internet Of Things Module



Electrical System

High Quality Electrical



SIEMENS electronic components; Large capacity, wide width selection: Applicable to all climatic conditions

MODULAR VECTOR CONVERTER

- > Large redundant heat design, more stable operation and longer equipment life under severe service environment;
- > Transient stop no stop, over-excitation protection and many other excellent functions to deal with various emergencies;
- > Built-in PLC and a variety of communication interfaces, more convenient to use and maintain:
- > Wide range of speed regulation, high stability accuracy, achieve ultra-low speed 0.01Hz stable operation with a load.





Off-load 0.71 MPa

Average operating pressure 0.685 MPa

VFD pressure target: 0.665 MPa On-load 0.66 MPa

PID Function ON (On-load ratio 60%) VFD pressure target: 0.59 MPa

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UD-VPM 5.5-55kW 7-10bar







■ UD-VPM Series One-stage Compression Technical Parameters

Model	Nominal Power (kW)	Working Pressure (bar)	FAD (m ³ /min)	Discharge Outlet GBT7306 (screw thread)	Gross Weight (kg)	External Dimension (L×W×H mm)
UD5A-7VPM UD5A-8VPM	5.5	7 8	0.92 0.85	G3/4	225	800×600×1000
UD8A-7VPM UD8A-8VPM	7.5	7 8	1.12 1.08	G3/4	225	800×600×1000
UD11A-7VPM UD11A-8VPM UD11A-10VPM	11	7 8 10	1.83 1.76 1.50	G1	300	880×650×1100
UD15A-7VPM UD15A-8VPM UD15A-10VPM	15	7 8 10	2.50 2.40 2.00	G1	320	880×650×1100
UD18A-7VPM UD18A-8VPM UD18A-10VPM	18.5	7 8 10	3.20 2.90 2.70	G1-1/4	400	1000×650×1220
UD22A-7VPM UD22A-8VPM UD22A-10VPM	22	7 8 10	3.70 3.50 3.20	G1-1/4	400	1000×650×1220
UD30A-7VPM UD30A-8VPM UD30A-10VPM	30	7 8 10	5.30 5.10 4.60	G1-1/2	565	1100×900×1300
UD37A-7VPM UD37A-8VPM UD37A-10VPM	37	7 8 10	6.60 6.50 5.80	G1-1/2	565	1100×900×1300
UD45A-7VPM UD45A-8VPM UC45A-10VPM	45	7 8 10	8.10 7.80 7.00	G2	860	1250×1100×1600
UD55A-7VPM UD55A-8VPM UD55A-10VPM	55	7 8 10	10.30 10.00 9.10	G2	880	1250×1100×1600

Remarks

1. The volumetric flow test standard: GB/T 3853-2017, GB/T 15487-2015;

The noise test standard: GB/T 4980-2003 "determination of the positive displacement compressor noise";
 The motor rated power is based on below 1000m altitude; Volumetric flow based on elevation below 400m;
 The company reserves to the above technical parameters for design and change without prior notice of rights;



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UDT-VPM 55-315kW 7-10Bar



■ UDT-VPM Series Two-stage Compression Technical Parameters

Model	Nominal Power (kW)	Working Pressure (bar)	FAD (m³/min)	Outlet Dimension GBT7306(screw thread) GBT9119(flange)	Weight (kg)	Profile Dimension (L x W x H mm)	
UDT55-7VPM	55	7	4.8-12.0		2430	2300~1290~18204)	
UDT55-8VPM	55	8	4.4-11.0	DINGOLINIO	2430	2300X1270X1020A)	
UDT75-7VPM	75	7	6.1-15.2		2450	2300~1290~18204)	
UDT75-8VPM	/5	8	6.1-15.2	DINOUFINIO	2430	2300X1290X1020A)	
UDT90-7VPM		7	8.2-20.5		3080	2600x1700x2090(A)	
UDT90-8VPM	90	8	7.8-19.5	DINOUFINIO	3550	3000x1850x2120(W)	
UDT110-7VPM		7	9.6-24.5				
UDT110-8VPM	110	8	9.2-23.4	DN80PN16	3280 3980	2600x1700x2090(A) 3000x1850x2120(W)	
UDT110-10VPM		10	7.6-20.3		5700	555557155572125(11)	
UDT132-7VPM		7	11.8-29.5				
UDT132-8VPM	132	8	10.8-27.0	DN80PN16	4280 4080	3200x1850x2120(A) 3000x1850x2120(W)	
UDT132-10VPM		10	9.2-23.0		1000	3000x1030x2120(11)	
UDT160-7VPM		7	13.6-34.0				
UDT160-8VPM	160	8	13.2-33.0	DN80PN16	4400 4200	3200x1850x2120(A) 3000x1850x2120(W)	
UDT160-10VPM		10	10.8-27.0		1200	50000005002120(00)	
UDT185-7VPM		7	15.6-39.0				
UDT185-8VPM	185	8	15.4-38.5	DN100PN16	5560 5260	3900x1850x2120(A) 3350x1850x2120(W)	
UDT185-10VPM		10	13.0-32.5		5200		
UDT200-7VPM	200	7	17.4-43.5		7716	4200x2150x2250(A)	
UDT200-8VPM	200	8	16.4-41.0	DN125PN16	7360	3400x2150x2250(W)	
UDT220-7VPM		7	20.0-50.0				
UDT220-8VPM	220	8	18.5-46.0	DN125PN16	8100 7700	4200x2150x2250(A) 3400x2150x2250(W)	
UDT220-10VPM		10	16.4-41.0		//00	5100/2150/2250(**)	
UDT250-7VPM		7	21.2-53.0				
UDT250-8VPM	250	8	20.0-50.0	DN125PN16	8500 8150	4200x2150x2250(A)	
UDT250-10VPM		10	18.4-46.0		0150	34007213072230(**)	
UDT280-7VPM		7	23.6-59.0				
UDT280-8VPM	280	8	22.4-56.0	DN125PN16	8550 8200	4200x2150x2250(A) 3400x2150x2250(A)	
UDT280-10VPM		10	20.0-50.0		0200	JTUUAZIJUAZZJU(VV)	
UDT315-7VPM		7	26.0-65.0		10055		
UDT315-8VPM	315	8	24.4-61.0	DN125PN16	10000 9120	5000x2150x2300(A) 3850x2150x2300(W)	
UDT315-10VPM		10	21.2-53.0		,.20		

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UD-VPM Low-Pressure 37-250kW 2-4Bar







■ UD-VPM Low-Pressure Series One-stage Compression Technical Parameters

Model	Nominal Power (kW)	Work pressure/ maximum work pressure (bar)	FAD (m ³ /min)	Outlet Dimension GBT9119(flange)	FAD (m3/min)	Weight (kg)	Profile Dimension (L x W x H mm)
UD37A-2VPM	37	2	1.2-2.3	DN125	14.0	2400	2600x1460x2080
UD45A-2VPM	45	2	1.2-2.3	DN125	17.0	2400	2600x1460x2080
UD45A-3VPM	40	3	2.3-3.3	DN125	14.0	2400	2600x1460x2080
UD55A-2VPM		2	1.2-2.3	DN125	21.5	4000	3200x1850x2150
UD55A-3VPM	55	3	2.3-3.3	DN125	17.0	2600	2600x1460x2080
UD55A-4VPM		4	3.3-4.2	DN125	14.0	2600	2600x1460x2080
UD75A-2VPM		2	1.5-2.3	DN125	27.0	3200	2500x1650x2300
UD75A-3VPM	75	3	2.3-3.3	DN125	21.5	2800	2600x1460x2080
UD90A-2VPM		2	1.5-2.3	DN125	32.0	3200	2500x1650x2300
UD90A-3VPM	90	3	2.3-3.3	DN125	27.0	3200	2500x1650x2300
UD90A-4VPM		4	3.3-4.2	DN125	24.5	3200	2500x1650x2300
UD110A-2VPM		2	1.2-2.3	DN150	40.0	4500	3200x1850x2300
UD110A-3VPM	110	3	2.3-3.3	DN125	32.0	3200	2500x1650x2300
UD110A-4VPM		4	3.3-4.2	DN125	29.5	3200	2500x1650x2300
UD132A-2VPM	170	2	1.2-2.3	DN300	47.0	6900	4200x2150x2300
UD132A-3VPM	152	3	2.3-3.3	DN150	40.0	4500	3200x1850x2300
UD132W-2	170	2	1.2-2.3	DN300	47.0	6900	4200x2150x2300
UD132W-2VPM	152	2	1.2-2.3	DN300	47.0	6900	4200x2150x2300
UD160A-3		3	2.3-3.3	DN250	47.0	6900	4200x2150x2300
UD160A-2VPM	1(0	2	1.2-2.3	DN300	55.7	6900	4200x2150x2300
UD160A-3VPM	160	3	2.3-3.3	DN250	47.0	6900	4200x2150x2300
UD160A-4VPM		4	3.3-4.2	DN150	40.0	4500	3200x1850x2300
UD160W-3		3	2.3-3.3	DN250	47.0	6900	4200x2150x2300
UD160W-2VPM	160	2	1.2-2.3	DN300	55.7	6900	4200x2150x2300
UD160W-3VPM		3	2.3-3.3	DN250	47.0	6900	4200x2150x2300
UD185A-4	105	4	3.3-4.2	DN200	47.0	5000	3400x2150x2300
UD185A-4VPM	C81	4	3.3-4.2	DN200	47.0	5000	3400x2150x2300
UD185W-4	405	4	3.3-4.2	DN200	47.0	5000	3400x2150x2300
UD185W-4VPM	185	4	3.3-4.2	DN200	47.0	5000	3400x2150x2300
UD200A-3		3	2.3-3.3	DN250	55.7	7100	4400x2150x2300
UD200A-3VPM	200	3	2.3-3.3	DN250	55.7	7100	4400x2150x2300
UD200W-3		3	2.3-3.3	DN250	55.7	7100	4200x2150x2300
UD200W-3VPM	200	3	2.3-3.3	DN250	55.7	7100	4200x2150x2300
UD220A-3VPM	220	3	2.3-3.3	DN250	61.0	7100	4400x2150x2300
UD220W-3VPM	220	3	2.3-3.3	DN250	61.0	7100	4200x2150x2300
UD250W-3VPM	250	3	2.3-3.3	DN250	70.0	7200	4200x2150x2300



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Fixed-speed



UDT-VPM Low-Pressure 75-220kW 4.5-5Bar



■ UDT-VPM Low-Pressure Series Two-stage Compression Technical Parameters

Model	Nominal Power (kW)	Working Pressure (bar)	FAD (m ³ /min)	Outlet Dimension GBT7306(screw thread) GBT9119(flange)	Weight (kg)	Profile Dimension (L x W x H mm)
UDT75-5VPM	75	5	8.0-20.0	DN80PN16	3080	2600x1700x2090(A)
UDT90-5VPM	90	5	9.0-22.5	DN80PN16	3800 3600	3200x1850x2120(A) 3050x1850x2120(W)
UDT110-5VPM	110	5	11.0-27.5	DN125PN16	4230 4080	3200x2050x2120(A) 3000x1850x2120(W)
UDT132-5VPM	132	5	13.0-32.5	DN125PN16	4300 4100	3200x2050x2120(A) 3000x1850x2120(W)
UDT160-5VPM	160	5	16.4-41.0	DN125PN16	6300 5600	3850x2150x2150(Å) 3400x2150x2220(W)
UDT200-5VPM	200	5	20.0-50.0	DN150PN16	8060 7760	4200x2150x2250(A) 3400x2150x2250(W)
UDT220-5VPM	220	5	22.4-56.0	DN150PN16	8060 7860	4200x2150x2250(A) 3400x2150x2250(W)
UDT250-5VPM	250	5	23.6-59.0	DN150PN16	8200 8000	4200x2150x2250(A) 3400x2150x2250(W)
UDT90-4.5VPM	90	4.5	9.0-22.5	DN80PN16	3800 3600	3200x1850x2120(A) 3050x1850x2120(W)
UDT110-4.5VPM	110	4.5	11.2-28.0	DN125PN16	4230 4080	3200x2050x2120(A) 3000x1850x2120(W)
UDT132-4.5VPM	132	4.5	13.6-34.0	DN125PN16	4300 4100	3200x2050x2120(A) 3000x1850x2120(W)
UDT185-4.5VPM	180	4.5	20.0-50.0	DN125PN16	8000 7600	4200x2150x2250(A) 3400x2150x2120(W)
UDT200-4.5VPM	200	4.5	21.2-53.0	DN150PN16	8060 7760	4200x2150x2250(A) 3400x2150x2250(W)
UDT220-4.5VPM	220	4.5	23.6-59.0	DN150PN16	8060 7760	4200x2150x2250(A) 3400x2150x2250(W)



UD Series 75-400kW 7-10Bar





UD Series One-stage Compression Technical Parameters

Model	Nominal Power (kW)	Working Pressure (bar)	FAD (m³/min)	Outlet Dimension GBT7306(screw thread) GBT9119(flange)	Weight (kg)	Profile Dimension (L x W x H mm)	
UD75-7C		7	11.80				
UD75-8C	75	8	11.60	DN50	1870	2100x1350x1550(A)	
UD75-10C		10	11.40				
UD90-7D		7	16.70				
UD90-8D	90	8	16.00	DN50	2140	2200x1300x1750(A)	
UD90-10D		10	14.80			22002130021730(W)	
UD110-7		7	20.80				
UD110-8	110	8	20.00	DN80	3300	3050x1850x2120(A)	
UD110-10		10	17.50			2630x1630x2120(W)	
UD132-7		7	24.00				
UD132-8	132	8	23.00	DN80	3400	3050x1850x2120(A) 2850x1850x2120(\v/)	
UD132-10		10	20.60			2030/1030/2120(**)	
UD160-7		7	28.00				
UD160-8	160	8	27.00	DN80	3750	3050x1850x2120(A) 2850x1850x2120(W)	
UD160-10		10	25.00			2030/1030/2120(**)	
UD185-7		7	30.50				
UD185-8	185	8	29.50	DN80	3790	3050x1850x2120(A) 2850x1850x2120(W)	
UD185-10		10	27.00				
UD200-7		7	40.00		4900 4600	7/00 4050 0450/4	
UD200-8	200	8	39.00	DN100		3050x1850x2150(A) 3050x1850x2150(W)	
UD200-10		10	35.00				
UD250-7		7	47.50		((00	4200-2150-2250(4)	
UD250-8	250	8	46.70	DN125	6200	3400x2150x2250(W)	
UD250-10		10	42.00				
UD280-7		7	53.00			4200-2150-2250(A)	
UD280-8	280	8	52.00	DN125	/150 6800	4200x2150x2250(A) 3400x2150x2250(W)	
UD280-10		10	46.70				
UD315-7		7	59.70		8400		
UD315-8	315	8	56.70	DN125	7600	5000x2150x2300(A)	
UD315-10		10	50.20			5050A2150A2250(W)	
UD355-7		7	70.30				
UD355-8	355	8	65.50	DN125	8600	5000x2150x2300(A) 3850x2150x2250(\//)	
UD355-10		10	55.20		7000	55557215072250(77)	
UD400-8 UD400-10	400	8 10	72.30 62.80	DN125	8800 8000	5000x2150x2300(A) 3850x2150x2250(W)	

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Fixed-speed



UDT Series 55-560kW 7-10Bar





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UDT Series Two-stage Compression Technical Parameters

Model	Nominal Power (kW)	Working Pressure (bar)	FAD (m³/min)	Outlet Dimension GBT7306(screw thread) GBT9119(flange)	Weight (kg)	Profile Dimension (L x W x H mm)
UDT55-7		7	13.2			
UDT55-8	55	8	13.0	DN80PN16	2520	2300x1290x1820(A)
UDT75-7		7	15.2			
UDT75-8	75	8	15.2	DN80PN16	2530	2300x1290x1820(A)
UDT90-7	90	7	20.5	DN80PN16	3150	2600x1700x2090(A)
UDT90-8		8	19.5		5500	2850x1850x2120(W)
UDT110-7		7	24.5		3640	2600x1700x2090(A)
UDT110-8 UDT110-10	110	8	23.4 20.3	DN80PN16	3900	2850x1850x2120(W)
UDT132-7		7	29.5		4200	3050x1850x2120(A)
UDT132-8 UDT132-10	132	8 10	27.0 23.0	DN80PN16	4000	2850x1850x2120(W)
UDT160-7		7	34.0		4400	3050x1850x2120(A)
UDT160-8 UDT160-10	160	8 10	33.0 27.0	DN80PN16	4200	2850x1850x2120(W)
UDT185-7		7	39.0		5600	3600x1850x2150(A)
UDT185-8 UDT185-10	185	8 10	38.5 32.5	DN100PN16	5300	3050x1850x2150(W)
UDT200-7	200	7	43.5		7350	4200x2150x2250(A)
UDT200-8		8	41.0	DIVIZJENIO	6800	3400x2150x2250(W)
UDT220-7		7	50.0		7450	4200x2150x2250(A)
UDT220-8 UDT220-10	220	8	46.0 41.0	DN125PN16	6900	3400x2150x2250(W)

Model	Nominal Power (kW)	Working Pressure (bar)	FAD (m³/min)
UDT250-7 UDT250-8	050	7	53.0 50.0
UDT250-10	250	10	46.0
UDT280-7		7	59.0
UDT280-8	280	8	56.0
UDT280-10		10	50.0
UDT315-7		7	65.0
UDT315-8	315	8	61.0
UDT315-10		10	53.0
UDT355-8	755	8	69.5
UDT355-10	222	10	61.0
UDT355-7		7	78.0
UDT355-8	355	8	76.5
UDT400-7		7	85.0
UDT400-8	400	8	84.0
UDT400-10		10	77.0
UDT450-7		7	94.5
UDT450-8	450	8	93.0
UDT450-10		10	84.0
UDT500-7		7	104.0
UDT500-8	500	8	103.0
UDT500-10		10	93.0
UDT560-10	560	10	103.0

Remarks

A - Fan Cooling; W - Water Cooling.
 The FAD refers to a value in which the unit is tested in accordance with ISO1217 (GB/T3853) under the load conditions.
 For different industrial or operating conditions, the specification may be adjusted. The external view provided shall prevail.

Outlet Dimension GBT7306(screw thread) GBT9119(flange)	Weight (kg)	Profile Dimension (L x W x H mm)
DN125PN16	7500 7000	4200x2150x2250(A) 3400x2150x2250(W)
DN125PN16	8550 8200	4200x2150x2250(A) 3400x2150x2250(W)
DN125PN16	10000 9120	5000x2150x2300(A) 3850x2150x2300(W)
DN125PN16	11200 10250	5000x2150x2300(A) 3850x2150x2300(W)
DN150PN16	11825 10250	6000x2150x2450(A) 4650x2150x2450(W)
DN150PN16	11985 10410	6000x2150x2450(A) 4650x2150x2450(W)
DN150PN16	12015 10440	6000x2150x2450(A) 4650x2150x2450(W)
DN150PN16	12045 10470	6000x2150x2450(A) 4650x2150x2450(W)
DN150PN16	12095 10520	6000x2150x2450(A) 4650x2150x2450(W)

22



OIL-FREE SERIES









Turbo Centrifugal Compressor





DUAL LABYRINTH SHAFT SEALING 100% Oil-Free Zero Instrument Air Consumption



INTEGRATED CENTRIFUGAL COMPRESSOR TECHNOLOGIES

· High reliability, high safety and enviromental protection

·Energy-saving

- Integrated package and economical installation
- Siemens PLC + touch screen, friendly interface and easy operation
- Easy maintenance and economical cost
- ·1-4 stage option
- ·No instrument gas required
- No special base and anchor bolt required
- ·Oil-free
- ·Silicon-free
- ·No sealing gas required
- ·Low noise and low vibration
- ·Anti surge protection

UTC60Series

Capacity Range: Discharge pressure: Main Motor Power: Main Motor Voltage: Base Size: Weight:

UTC90Series

Capacity Range: Discharge pressure: Main Motor Powers Main Motor Voltage: Base Size: Weight:

UTC150Series

Capacity Range: Discharge pressure: Main Motor Powers Main Motor Voltage: Base Size: Weight:

UTC300Series

Capacity Range: Discharge pressure: Main Motor Power: Main Motor Voltage: Base Size: Weight:

UTC500Series

Capacity Range: Discharge pressure: Main Motor Power: Main Motor Voltage: Base Size: Weight:



30-80m³/min 0.8-11bar(g) 100-600KW 380V/3KV/6KV/10KV/50Hz/3Ph 3400mm×2200mm 7000Kg-8000Kg

80-120m³/min 0.8-11bar(g) 300-750KW 380V/3KV/6KV/10KV/50Hz/3Ph 3500mm×2250mm 7500Kg-8000Kg

100-200m³/min 0.8-11bar(g) 400-1200KW 3KV/6KV/10KV/50Hz/3Ph 4000mm×2300mm 9000Kg-11000Kg

200-400m³/min 0.8-11bar(g) 900-2200KW 3KV/6KV/10KV/50Hz/3Ph 5000mm×2300mm 16000Kg-20000Kg

400-1500m³/min 0.8-11bar(g) 1500-6000KW 3KV/6KV/10KV/50Hz/3Ph 12000mm×6500mm 20000Kg-70000Kg

28

Screw Blower

High Efficiency ►►►

Compared with the traditional Roots blower, UBS oil-free screw blower has higher efficiency from the technical principle. See below P-V performance chart of Roots blower and screw blower for details.



P-V performance chart of Roots blower

4 > 1 Inspiratory process. As the Roots' rotor rotates, air is drawn in until the intake is closed.

1 > 2 External compression process. It can be broken down into two processes. The Roots rotor continues to rotate, the volume of the enclosed space does not change, there is no internal compression; Until the enclosed space is suddenly exposed to the vent, the pressure from the piping network increases the air pressure to this space.

2 > 3 Exhaust process. As roots rotor continues to rotate, the air that has been boosted will be released to the piping network.

Ρ 3 2 Energy Consumption 4 1

P-V performance chart of screw blower

energy compared to Roots blower

UBS oil-free screw blower can save up to 50%

4 > 1 Inspiratory process. As the screw rotor rotates, the volume of the spiral groove increases gradually, and the air is drawn into the blower until the intake is closed.

1 > 2 Internal compression process. The intake port has been closed, and the exhaust port has not been opened yet. Due to the spiral design, the spiral movement makes the volume of the closed spiral groove smaller and smaller, resulting in internal compression and pressure rise.

2 > 3 Exhaust process. As the rotor continues to rotate, the exhaust port opens and the compressed air is discharged from the blower.

Under the same condition of air volume and pressure, screw blower needs mvh less power consumption. In the figure, the green part is the energy savings. Compared with the traditional Roots blower, the screw blower can save up to 35% energy. The higher the pressure, the more significant the energy-saving effect, with an average energy saving of 20%. With precision design and manufacture, intelligent control and frequency conversion drive, compared with Roots blower, the energy efficiency of oil-free screw blower can reach 20%-50%.

UBS oil-free screw blower is skid-mounted integrated box type. Blower air end, motor, transmission, intake filter, intake and exhaust silencer, shock absorber, safety valve, exhaust check valve, starting cabinet, control system, frequency converter and sound insulation cover are all integrated and installed on the base. All units before factory leaving are to be filled with lubricating oil and machine tested. There is no need to embed an expansion bolt foundation for installation. Only a smooth and firm cement floor is required for installation. Connect the exhaust pipe network, connect the power cable, the machine can be started and utilised.

It is recommended to install a butterfly valve on the exhaust pipe of each blower to facilitate cutting off the connection with the pipe network for equipment maintenance. The connection between the branch pipe and main pipe should not use "T" type tee, but it is recommended to use "Y" type tee, which can reduce the loss of wind pressure.

An outdoor rain protection kit option allows you to install your blower equipment close to a point of use, such as next to a sump.

Plug-and-Play









1

PLC intelligent control, 6-inch colour LCD touch screen; control panel and frequency converter integrated with the cabinet.

2 Dedicated air inlet filter to protect the blower while improves its efficiency, consisting of stainless steel wire mesh and polyester fibre filter cotton. The filtration accuracy reaches 1µ, and the pressure drops less than 150pa.

3

Class IP55 protection, with optional high-efficiency VFD motor or VFD PMS motor.

4

The motor directly coupled with air end and mounted on chassis with elastic shock absorber, which reduces vibration and noise.

5

Professional acoustic customized intake and exhaust muffler, as well as the fully closed enclosure, to lower the noise of the oil-free screw blower.

6

Own core technology, solid and efficient oil-free twin-screw air end.

7

Elastic bellows, reduce exhaust pulse of the motor, reduce vibration.

8

The special safety valve ensures the safety of the blower and air using equipment.

9

External lubricating oil circulation forced cooling system, guarantee the lubrication and cooling of the bearing and gear. And with the top quality screw oil pump, more reliable

and durable. The high precision lubricating oil filter ensures the cleanliness of lubricating oil, and the integrated temperature control valve provides the proper viscosity of

lubricating oil and extends its life.

Specification Parameters

■ UBS180 series

Rated power(kW)	18	22	30	37	45	55	75	90	110
Pressure rise(kPa)				Flow (m³/m	nin)				
50	16	22	31.5	34	38	45			
70		16	22	27	31	38	45		
90			15	21	31	38	44		
110				15	26	31	37	44	
130				15	20.5	26	30	43.5	
150					14	20	30	36.5	43.5

■ UBS220 series

Rated power(kW)	55	75	90	110	132	160
Pressure rise(kPa)			Flow (m³/min)			
50	66	71				
70	51	66	71			
90		54	65	70		
110		44.5	54	64.5	69.5	
130			44	53	69	
150			38	48.5	64	68

■ UBS280 series

Rated power(kW)	75	90	110	132	160	185	200	250
Pressure rise(kPa)			Fl	ow (m³/min)				
50	83	99	121					
70		83	99	120				
90			82.5	98.5	120			
110				82	98	120		
130					82	98	120	
150						81.5	97.5	119





UDL SERIES





Newly developed high performance air end

Anti-leakage transmission shaft and seal

UNITED OSD screw seal designed for oil-free screw compressor may actively push the oil in the internal spiral groove. And the reasonable combination of the air seal and screw seal may prevent the oil from entering the compression chamber.



•Bearing and synchronous gear

The special ball and roller bearings are used, and the injection oil supply is adopted for lubrication. Besides, the synchronous gears made of precision machining ensure the optimal clearance between rotors.

• Stainless steel rotor

At the same time when the special stainless steel with good corrosion resistance and durability is used as rotor material, the tooth surface of rotors is subject to high-precision abrasive machining. And in order to further reduce the internal leakage, under the premise of taking the thermal expansion produced in operation into consideration, the mirror machining is performed to ensure the optimal clearance between rotors.

• High performance rotor line

The large thermal expansion is caused because the rotors contact with the exhaust of more than 200°C. UNITED OSD predicts the thermal

expansion in advance and uses the independent three-dimensional correction technology to perfect the line, so as to ensure the optimal clearance between rotors.





Energy-saving

• V-tupe

Both variable speed control and load control of V-type are the independently developed technology of UNITED OSD. The control system may control the exhaust pressure within 0.01MPa, not only responding to all load requirements but also giving full play to the Energy-saving effect through its preeminent stability.







• ECOMODE (standard machine)

According to the variation of the compressor load rate, decreasing the remaining air pressure while automatically reducing the unloading, so as to realize the Energy-saving. E.g., 0.7MPa, 75kW, constant speed water cooler

If operating the computing with road rate of 70%, annual 11.3MWh power may be saved. If operating the computing with road rate of 90%, annual 28MWh power may be saved. (Work conditions: For the air storage tank of 2.26m3, the annual operating hours are 8,000h.)



Environmental protection

• OMR and automatic condensate draining valve

The OMR (oil mist separator) that may recover and reuse the oil mist discharged from the gearbox is configured. Besides, the automatic condensate draining valve of aftercooler/intercooler is configured, draining the condensate per interval while wasting no compressed air.

OMR





Annual power saving of about 83MWh Work condition

0.7MPa, 75kW, V-type; necessary pressure: 0.6MPa; load rate: 60%; annual operating hours: 8,000h





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Constant speed machines 55/75kW(A/W)

55// 5KW (A/ W)									
Item·Unit	Model	UDL	.55A	UDL	75A	UDL	55W	UDL7	5W
Cooling mode	-			A			١	W	
Work pressure/maximum work pressure	MPa	0.75	0.86	0.75	0.86	0.75	0.86	0.75	0.86
Air displacement	m³/min	9.0	7.8	12.9	11.4	9.2	7.9	13.0	11.6
Inlet pressure Temperature	°C		Air pressure 0-45						
Drive mode	_			Dire	ct connection of r	notor + gear incre	easer		
Exhaust temperature	°C		Air temperature	e of below +15		Co	oling water temp	perature of below	+13
Exhaust pipe diameter	В				2 (fl	ange)			
Nominal power	kW	5	5	7	75	5	5	75	
Motor form	-			Clo	ass 2 closed exter	nal fan flange ma	tor	-	
Starting mode	-				Star-delt	a starting			
Mains voltage/frequency	V/Hz				38	0/50			
Exhaust fan power	kW	1	.5	2	.2		0.0)5x2	
Oil filling quantity	L		25 (ur	nfilled)			15 (ur	nfilled)	
Cooling water consumption	L/min		-	-		9	0	1	20
Cooling water temperature	°C		-	_			Belov	w 35	
Cooling water pipe diameter	В		-	_			1۰	1/4	
Weight	kg	1,5	00	1,7	90	1,4	80	1,6	590
Profile dimension (LxWxH)	mm	2,000x1,3	2,000x1,300x1,800 2,250x1,300x1,800		2,000×1,	300x1,800	2,250×1,	300×1,800	
Noise (1.5m from positive distance)	dB(A)	63	63	68	68	63	63	65	65

90/110kW(A/W)

Item·Unit	Model	UDL	90A	UDL1	10A	UDLS	90W	UDL110W	
Cooling mode	-			A			١	N	
Work pressure/maximum work pressure	MPa	0.75	0.86	0.75	0.86	0.75	0.86	0.75	0.86
Air displacement	m³/min	16.4	13.9	20.5	20.5 17.6 16.8 14.1				18.0
Inlet pressure Temperature	°C		Air pressure-0~45						
Drive mode	-			Dire	ct connection of n	notor + gear incre	easer		
Exhaust temperature	°C		Air tempera	ture of below +15			Cooling water te	emperature of be	low +13
Exhaust pipe diameter	В				2 (fl	ange)			
Nominal power	kW	9	0	11	10	9	0	1	10
Motor form	-			Clo	iss 2 closed exter	nal fan flange mo	tor		
Starting mode	-				Star-delt	a starting			
Mains voltage/frequency	V/Hz				380	0/50			
Exhaust fan power	kW		1.5	ix2			0.0	5x3	
Oil filling quantity	L		26 (u	nfilled)			16 (ur	nfilled)	
Cooling water consumption	L/min		-	-		16	50	18	30
Cooling water temperature	°C		-	-			Belo	w 35	
Cooling water pipe diameter	В		-	_			1•	1/2	
Weight	kg	2,2	50	2,4	00	2,1	00	2,2	250
Profile dimension (LxWxH)	mm		2,150x1,5	520x1,970			2,150x1,52	20x1,820	
Noise (1.5m from positive distance)	dB(A)	68	70	72	73	66	68	69	70

132-240kW(W)

Item.I Init	Model	UDL1	32W	UDL1	45W	UDL1	60W	UDL2	00W	UDL2	40W
Cooling mode	MDg	0.75	0.86	0.75	0.86	0.75	0.86	0.75	0.86	0.75	0.86
Work pressure/maximum work pressure	m³/min	24.0	21.8	26.5	24.0	28.5	26.5	37.0	33.5	40.5	36.5
Air displacement	°C		Air pressure:0~40								
Inlet pressure Temperature	_				Direct c	onnection of n	notor + gear ir	ncreaser			
Drive mode	°C				Coolin	g water temp	erature of belo	ow +13			
Exhaust temperature	В			2.1/2	(flange)				3 (flo	ange)	
Exhaust pipe diameter	L/min	20	00	21	0	24	10	3	00	33	30
Nominal power	°C					Bel	ow 35				
Motor form	В						2				
Starting mode	kW	13	32	14	5	16	50	2	00	24	1 0
Mains voltage/frequency	_				Class 4	4 closed exterr	hal fan flange	motor			
Exhaust fan power	—				Sta	r-delta (built-ir	n control cabir	net)			
Oil filling quantity	_					1	W				
Cooling water consumption	V/Hz					380	0/50				
Cooling water temperature	kW					().4				
Cooling water pipe diameter	L			40(uni	filled)				50(ur	nfilled)	
Weight	kg			3,9	00				4,9	950	
Profile dimension (LxWxH)	mm			2,600x1,6	500x1,940				2,900x1,	800x1,940	
Noise (1.5m from positive distance)	dB(A)	68	69	69	70	69	70	69	70	70	71

V-type

Item·Unit	Model	UDL55	A-VFD	UDL75	A-VFD	UDL55	w-VFD	UDL75W	V-VFD
Cooling mode	-			А.			Ň	~	
Work pressure/maximum work pressure	MPa	0.75	0.86	0.75	0.86	0.75	0.86	0.75	0.86
Air displacement	m³/min	90	77	12 3	11.2	92	82	12.6	11.5
PO expansion mode ON:0.65MPa	m³/min	93	85	12.3	12.4	95	90	131	12.7
Nominal power	kW	5	5	12.7	75	7.5	55	7	75
Inlet pressure Temperature	°C			1	Air pressu	re∙0~45			-
Drive mode				Di	rect connection o	f motor + aear ir	ncreaser		
Startina mode					Soft s	tartina			
Exhaust temperature	°C		Air temperatu	ure of below +15			Air tempera	ture of below +13	
Motor form	B				2 (flo	inae)			
Starting mode					DCBI	motor			
Exhaust pipe diameter	V/Hz				380	0/50			
Exhaust fan power	kW	1.	5		2.2		0.0)5x2	
Oil filling quantity	L		25 (u	nfilled)			15 (u	nfilled)	
Cooling water consumption	 L/min		-	_			90	12	20
Cooling water temperature	°C		-	_			Bel	ow 35	-
Cooling water pipe diameter	В		-	_			1-1	1/4	
Weight	kg	1.3	1340		560	1.3	320	1.4	60
Profile dimension (LxWxH)	mm	2,000x1,3	300x1,800	2,250x1,	300x1,800	2.000x1.300x1.800 2.250x1		2,250x1,3	300x1,800
Noise (1.5m from positive distance)	dB(A)	63	65	67	68	63	63	65	66
110-240kW(A/W)						1	60	24	40
110-240kW(A/W) Item-Unit	Model	UDL1104	-VFD	UDL110	w-VFD	1 UDL160	60 W-VFD	24 UDL240V	40 V-VFD
110-240kW(A/W) Item-Unit Cooling mode	Model	UDL110A	A-VFD	UDL110	W-VFD	1 UDL160'	60 W-VFD W	24 UDL240V	40 V-VFD
110-240kW(A/W) Item-Unit Cooling mode Work pressure/maximum work pressure	Model – MPa	UDL1104	A-VFD A 0.86	UDL110	W-VFD 0.86	1 UDL160 0.75	60 W-VFD W 0.86	24 UDL240V 0.75	40 ▼-VFD 0.86
110-240kW(A/W) Item-Unit Cooling mode Work pressure/maximum work pressure Air displacement	Model — MPa m³/min	UDL1104 0.75 20.5	A-VFD A 0.86 17.6	UDL110 ¹ 0.75 20.8	W-VFD 0.86 18.0	1 UDL160 0.75 28.5	60 W-VFD W 0.86 26.5	24 UDL240V 0.75 40.5	40 V-VFD 0.86 36.5
110-240kW(A/W) Item-Unit Cooling mode Work pressure/maximum work pressure Air displacement Nominal power	Model — MPa m ^s /min kW	UDL110A 0.75 20.5	A-VFD A 0.86 17.6	UDL110 0.75 20.8	0.86 18.0	1 UDL160 0.75 28.5 1	60 W-VFD 0.86 26.5 60	0.75 40.5	40 V-VFD 0.86 36.5 40
110-240kW(A/W) Item-Unit Cooling mode Work pressure/maximum work pressure Air displacement Nominal power Inlet pressure-Temperature	Model MPa m³/min kW ° C	UDL110A 0.75 20.5	A-VFD A 0.86 17.6 1' Air pressu	UDL110 0.75 20.8 10 Jre-0-45	0.86 18.0	1 UDL160 0.75 28.5 1	60 W-VFD W 0.86 26.5 60 Air pressu	24 UDL240V 0.75 40.5 24 Jire-0-40	40 V-VFD 0.86 36.5 40
110-240kW(A/W) Item Unit Cooling mode Work pressure/maximum work pressure Air displacement Nominal power Inlet pressure-Temperature Drive mode	Model MPa m ³ /min kW °C	UDL110A 0.75 20.5	A-VFD A 0.86 17.6 1' Air pressu	UDL110 0.75 20.8 10 ure-0-45 Dire	W-VFD 0.86 18.0 ct connection of r	1 UDL160 0.75 28.5 1 motor + gear inc	60 W-VFD W 0.86 26.5 60 Air pressu reaser	24 UDL240V 0.75 40.5 24 ure-0-40	40 V-VFD 0.86 36.5 40
110-240kW(A/W) Item Unit Cooling mode Work pressure/maximum work pressure Air displacement Nominal power Inlet pressure-Temperature Drive mode Starting mode	Model MPa m ³ /min kW °C	UDL1104 0.75 20.5	A-VFD A 0.86 17.6 1' Air pressu	UDL110 0.75 20.8 10 ure-0-45 Dire	W-VFD 0.86 18.0 ct connection of r Frequenc	1 UDL160 0.75 28.5 1 motor + gear inc y converter	60 W-VFD W 0.86 26.5 60 Air pressu reaser	24 UDL240V 0.75 40.5 24 ure-0-40	40 V-VFD 0.86 36.5 40
110-240kW(A/W) Item Unit Cooling mode Work pressure/maximum work pressure Air displacement Nominal power Inlet pressure-Temperature Drive mode Starting mode Exhaust temperature	Model - MPa m ³ /min kW °C - C	UDL110A 0.75 20.5	A-VFD A 0.86 17.6 1 [°] Air pressu e of below +15	UDL110 0.75 20.8 10 Jure-0-45 Dire	W-VFD 0.86 18.0 ct connection of r Frequenc	1 UDL160 0.75 28.5 1 motor + gear inc y converter	60 W-VFD W 0.86 26.5 60 Air pressu reaser Cooling water te	24 UDL240V 0.75 40.5 24 ure-0-40 mperature of bel	40 V-VFD 0.86 36.5 40
110-240kW(A/W) Item-Unit Cooling mode Work pressure/maximum work pressure Air displacement Nominal power Inlet pressure-Temperature Drive mode Starting mode Exhaust temperature Exhaust pipe diameter	Model — MPa m ³ /min kW °C — C B	UDL110A 0.75 20.5	A-VFD A 0.86 17.6 17 Air pressu e of below +15 2 (fl	UDL110 0.75 20.8 10 Jure-0-45 Dire ange)	W-VFD 0.86 18.0 ct connection of r Frequenc	1 UDL160 0.75 28.5 1 motor + gear inc y converter	60 W-VFD W 0.86 26.5 60 Air pressu reaser Cooling water te 2-1/2 (flange)	24 UDL240V 0.75 40.5 24 ure-0-40 mperature of bel	40 V-VFD 0.86 36.5 40 low +13 3 (flange)
110-240kW(A/W) Item-Unit Cooling mode Work pressure/maximum work pressure Air displacement Nominal power Inlet pressure-Temperature Drive mode Starting mode Exhaust temperature Exhaust temperature Motor form	Model — MPa m ^s /min kW °C — B	UDL110A 0.75 20.5	A-VFD 0.86 17.6 1° Air pressu e of below +15 2 (fl Class 2 closed ext	UDL110 0.75 20.8 10 jre-0-45 Dire ange) ternal fan flange	W-VFD 0.86 18.0 ct connection of r Frequenc motor	1 UDL160 0.75 28.5 1 motor + gear inc y converter	60 W-VFD W 0.86 26.5 60 Air pressu reaser Cooling water te 2-1/2 (flange) Class 2 closed	0.75 40.5 24 ure-0-40 mperature of bel	40 V-VFD 0.86 36.5 40 1000 +13 3 (flange)
110-240kW(A/W) Item-Unit Cooling mode Work pressure/maximum work pressure Air displacement Nominal power Inlet pressure-Temperature Drive mode Starting mode Exhaust temperature Exhaust temperature Exhaust pipe diameter Motor form Mains voltage/frequency	Model — MPa m ³ /min kW °C — B — V/Hz	UDL110A 0.75 20.5	A-VFD 0.86 17.6 1° Air pressu e of below +15 2 (fi Class 2 closed ext	UDL110 0.75 20.8 10 jre-0-45 Dire ange) ternal fan flange	W-VFD 0.86 18.0 ct connection of r Frequenc motor 38(1 UDL160 0.75 28.5 1 motor + gear inc y converter	60 W-VFD W 0.86 26.5 60 Air pressu reaser Cooling water te 2-1/2 (flange) Class 2 closed	0.75 40.5 24 ure-0-40 mperature of bel	40 V-VFD 0.86 36.5 40 1000 +13 3 (flange)
110-240kW(A/W) Item-Unit Cooling mode Wark pressure/maximum work pressure Air displacement Nominal power Inlet pressure-Temperature Drive mode Starting mode Exhaust temperature Exhaust temperature Exhaust pipe diameter Motor form Mains voltage/frequency Exhaust fan power	Model — MPa m ³ /min kW °C — C B — V/Hz kW	UDL110A 0.75 20.5 Air temperatur 0 0	A-VFD 0.86 17.6 17 Air pressu e of below +15 2 (fl Class 2 closed ext ix2	UDL110 0.75 20.8 10 jre-0-45 Dire ange) iernal fan flange	W-VFD 0.86 18.0 ct connection of r Frequenc motor 386 2x2	1 UDL160' 0.75 28.5 1 motor + gear inc y converter	60 W-VFD W 0.86 26.5 60 Air pressu reaser Cooling water te 2-1/2 (flange) Class 2 closed 0	0.75 40.5 24 ure-0-40 mperature of bel d flange motor 4	40 V-VFD 0.86 36.5 40 1000 +13 3 (flange)
110-240kW(A/W) Item-Unit Cooling mode Work pressure/maximum work pressure Air displacement Nominal power Inlet pressure-Temperature Drive mode Starting mode Exhaust temperature Exhaust temperature Exhaust pipe diameter Motor form Mains voltage/frequency Exhaust fan power Oil filling quantity	Model — MPa m ³ /min kW °C — C B — V/Hz kW L	UDL110A 0.75 20.5 Air temperatur 0 1.5 26 (un	A-VFD 0.86 17.6 17 Air pressu e of below +15 2 (fi Class 2 closed ext ix2 filled)	UDL110 0.75 20.8 10 jrre-0-45 Dirre ange) iternal fan flange	W-VFD 0.86 18.0 ct connection of r Frequenc motor 380 2x2 filled)	1 UDL160' 0.75 28.5 1 motor + gear inc y converter)/50 40 (ur	60 W-VFD W 0.86 26.5 60 Air pressu reaser Cooling water te 2-1/2 (flange) Class 2 closed 0 nfilled)	24 UDL240V 0.75 40.5 24 ure:0-40 mperature of bel d flange motor .4	40 V-VFD 0.86 36.5 40 1000 +13 3 (flange) ifilled)
110-240kW(A/W) Item:Unit Cooling mode Wark pressure/maximum work pressure Air displacement Nominal power Inlet pressure:Temperature Drive mode Starting mode Exhaust temperature Exhaust temperature Exhaust temperature Exhaust pipe diameter Motor form Mains voltage/frequency Exhaust fan power Oil filling quantity Cooling water consumption	Model MPa m ³ /min kW °C C B V/Hz kW L L/min	UDL110A 0.75 20.5 Air temperatur 0 0 1.5 26 (un	A-VFD 0.86 17.6 17.6 17 Air pressu e of below +15 2 (fil Class 2 closed ext x2 filled) -	UDL110 0.75 20.8 10 jrre-0-45 Dire ange) ternal fan flange	W-VFD 0.86 18.0 ct connection of r Frequenc motor 380 2x2 ifilled) 80	1 UDL160' 0.75 28.5 1 motor + gear incr y converter)/50 40 (ur 2	60 W-VFD W 0.86 26.5 60 Air pressu reaser Cooling water te 2-1/2 (flange) Class 2 closed 0 nfilled) 40	24 UDL240V 0.75 40.5 24 0.75 40.5 24 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	40 V-VFD 0.86 36.5 40 1000 +13 3 (flange) ifilled) 30
110-240kW(A/W) Item-Unit Cooling mode Work pressure/maximum work pressure Air displacement Nominal power Inlet pressure-Temperature Drive mode Starting mode Exhaust temperature Exhaust pipe diameter Motor form Mains voltage/frequency Exhaust fan power Oil filling quantity Cooling water consumption Cooling water temperature	Model — MPa m³/min kW °C — C B — V/Hz kW L L/min °C	UDL110A 0.75 20.5 Air temperatur 0 0 1.5 26 (un	A-VFD A 0.86 17.6 17 Air pressu e of below +15 2 (fil Class 2 closed ext ix2 filled)	UDL110 0.75 20.8 10 jre-0-45 Dire ange) ternal fan flange	W-VFD 0.86 18.0 ct connection of r Frequenc motor 380 2x2 filled) 80	1 UDL160' 0.75 28.5 1 motor + gear incr y converter 0/50 40 (ur 2	60 W-VFD W 0.86 26.5 60 Air pressu reaser Cooling water te 2-1/2 (flange) Class 2 closed 0 nfilled) 40	24 UDL240V 0.75 40.5 24 0.75 40.5 24 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	40 V-VFD 0.86 36.5 40 1000 +13 3 (flange) 1011
110-240kW(A/W) Item-Unit Cooling mode Work pressure/maximum work pressure Air displacement Nominal power Inlet pressure-Temperature Drive mode Starting mode Exhaust temperature Exhaust pipe diameter Motor form Mains voltage/frequency Exhaust fan power Oil filling quantity Cooling water consumption Cooling water temperature Cooling water pipe diameter	Model — MPa m³/min kW °C — C B — V/Hz kW L L/min °C B	UDL110A 0.75 20.5 Air temperatur 0 0 1.5 26 (un	A-VFD A 0.86 17.6 17 Air pressu e of below +15 2 (fil Class 2 closed ext x2 filled) - -	UDL110 0.75 20.8 10 Jire-0-45 Dire ange) ternal fan flange 0.: 16 (ur 1	W-VFD 0.86 18.0 ct connection of r Frequenc motor 380 2x2 filled) 80 1/2	1 UDL160' 0.75 28.5 1 motor + gear inc y converter 0/50 40 (ur 2	60 W-VFD W 0.86 26.5 60 Air pressu reaser Cooling water te 2-1/2 (flange) Class 2 closed 0 nfilled) 40	24 UDL240V 0.75 40.5 24 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	40 V-VFD 0.86 36.5 40 10w +13 3 (flange) ifilled) 30
110-240kW(A/W) Item-Unit Cooling mode Work pressure/maximum work pressure Air displacement Nominal power Inlet pressure-Temperature Drive mode Starting mode Exhaust temperature Exhaust pipe diameter Motor form Mains voltage/frequency Exhaust fan power Oil filling quantity Cooling water consumption Cooling water temperature Cooling water pipe diameter Weight	Model MPa m³/min kW °C C B V/Hz kW L L/min °C B kg	UDL110A 0.75 20.5 Air temperatur 0 0 1.5 26 (un - - - - - - - - - - - - - - - - - - -	A-VFD A 0.86 17.6 17 Air pressu e of below +15 2 (filled) - - - 00	UDL110 0.75 20.8 10 Jire-0-45 Dire ange) ternal fan flange 0.: 16 (ur 1	W-VFD 0.86 18.0 ct connection of r Frequenc motor 380 2x2 filled) 80 1/2 350	1 UDL160' 0.75 28.5 1 motor + gear inc y converter 0/50 40 (uu 2	60 W-VFD W 0.86 26.5 60 Air pressu reaser Cooling water te 2-1/2 (flange) Class 2 closed 0 nfilled) 40 200 200 200 200 200 200 200	24 UDL240V 0.75 40.5 20 rre-0-40 d flange motor 4 flange motor 4 gelow 35 2 5,2	40 V-VFD 0.86 36.5 40 1000 +13 3 (flange) ifilled) 30 250
110-240kW(A/W) Item-Unit Cooling mode Work pressure/maximum work pressure Air displacement Nominal power Inlet pressure-Temperature Drive mode Starting mode Exhaust temperature Exhaust temperature Exhaust pipe diameter Motor form Mains voltage/frequency Exhaust fan power Oil filling quantity Cooling water consumption Cooling water temperature Cooling water pipe diameter Weight Profile dimension (LxWxH)	Model — MPa m³/min kW °C B — C B V/Hz kW L L/min °C B kg mm	UDL110A 0.75 20.5 Air temperatur 0 0 1.5 26 (un - - - - 2,5 2,150x1,5	A-VFD A 0.86 17.6 17 Air pressu e of below +15 2 (filled) - - - 00 520x1,970	UDL110 0.75 20.8 10 Dire-0-45 Dire ange) ternal fan flange 0.: 16 (ur 1 1	W-VFD 0.86 18.0 ct connection of r Frequenc motor 380 2x2 filled) 80 1/2 350 520x1,820	1 UDL160' 0.75 28.5 1 motor + gear inc y converter 0/50 40 (ur 2 0/50	60 W-VFD W 0.86 26.5 60 Air pressu reaser Cooling water te 2-1/2 (flange) Class 2 closed 0 nfilled) 40 20 20 20 20 20 20 20 20 20 2	24 UDL240V 0.75 40.5 20 rre-0-40 d flange motor 4 flange motor 4 flange motor 4 gelow 35 2 2 2,600x1,6	40 V-VFD 0.86 36.5 40 1000 +13 3 (flange) 101 101 102 102 102 102 102 102

Item-Unit	Model	UDL55	A-VFD	UDL75	A-VFD	UDL55V	V-VFD	UDL75V	V-VFD
Cooling mode	-	1	,	Α.			\	V	
Work pressure/maximum work pressure	MPa	0.75	0.86	0.75	0.86	0.75	0.86	0.75	0.86
Air displacement	m³/min	9.0	7.7	12.3	11.2	9.2	8.2	12.6	11.5
PQ expansion mode ON:0.65MPa	m³/min	93	85	12.7	12.4	95	9.0	131	12.7
Nominal power	kW	5	5	7	5	5	5	7	75
Inlet pressure Temperature	°C		-	1	Air pressu	re∙0~45		1	
Drive mode				Dir	ect connection of	f motor + gear in	creaser		
Starting mode					Soft s	tarting			
Exhaust temperature	°C		Air temperatu	re of below +15			Air tempera	ture of below +13	
Motor form	В				2 (fla	2 (flange)			
Starting mode			DCBI motor						
Exhaust pipe diameter	V/Hz				380	0/50			
Exhaust fan power	kW	1	.5	2	.2		0.0	5x2	
Oil filling quantity	L		25 (u	nfilled)			15 (u	nfilled)	
Cooling water consumption	L/min		-	_		9	0	12	20
Cooling water temperature	°C		-	_			Bel	ow 35	
Cooling water pipe diameter	В		-	-			1-1	/4	
Weight	kg	1.3	40	1.5	60	1.3	20	1.4	60
Profile dimension (LxWxH)	mm	2,000x1,3	300x1,800	2,250x1,3	300x1,800	2,000x1,3	300x1,800	2,250x1,3	300x1,800
Noise (1.5m from positive distance)	dB(A)	63	65	67	68	63	63	65	66
110-240kW(A/W)	Model					16	60	24	40
Item-Unit	Model	UDL1104	A-VFD	UDL110\	W-VFD	UDL160V	V-VFD	UDL240V	V-VFD
Cooling mode	-		4			V	V		
Work pressure/maximum work pressure	MPa	0.75	0.86	0.75	0.86	0.75	0.86	0.75	0.86
Air displacement	m³/min	20.5	17.6	20.8	18.0	28.5	26.5	40.5	36.5
Nominal power	kW		11	10		16	50	2	40
Inlet pressure Temperature	<u>°C</u>		Air pressu	ıre∙0~45			Air pressu	ıre∙0~40	
Drive mode				Dire	ct connection of r	motor + gear incr	easer		
Starting mode					Frequenc	y converter			
Exhaust temperature	<u>°</u>	Air temperatur	e of below +15				Cooling water te	mperature of bel	ow +13
Exhaust pipe diameter	В		2 (fl	ange)			2-1/2 (flange)		3 (flange)
Motor form		(Class 2 closed ext	ernal fan flange	motor		Class 2 closed	flange motor	
Mains voltage/frequency	V/Hz				380	0/50			
Exhaust fan power	kW	1.5	ix2	0.2	2x2		0	.4	
Oil filling quantity	L	26 (un	filled)	16 (un	filled)	40 (un	filled)	40 (ur	nfilled)
Cooling water consumption	L/min		-	11	30	24	40	3	30
Cooling water temperature	<u>°</u>		-					Below 35	
Cooling water pipe diameter	В	-		1-1	/2			2	
Weight			<u> </u>				250		
	kg	2,5	00	2,3	50	4,1	00	5,2	250
Profile dimension (LxWxH)	kg mm	2,5 2,150x1,5	00 20x1,970	2,3 2,150x1,5	50 20x1,820	4,1 2,600x1,6	00 500x1,940	5,2 2,600x1,	600x1,940

Notes:

 Notes:
 1. The air displacement is a value measured according to the conditions specified in AppendixThe motor power refers to nominal power.

 1. The air displacement is a value measured according to the conditions specified in AppendixThe motor power refers to nominal power.

 C in ISO 1217 (3rd Edition). For relevant assurance values, please further consult.
 6. For the cooling water quality, please refer to the compressor related drawing and manual,

 2. These compressors are provided no residual-current circuit breaker (RCCB). Customers
 or consult dealer.

 3. These compressors cannot be used for respirator instruments which directly inhale
 7. Set the compressor in a room with low humidity, little dust and no explosive and corrosive

 3. These compressions cannot be used for respirator instruments which directly inhale
 9. The area provided to right to phone the most the right to phone the righone the right to phone the right to phone t

gases. 8. The company reserves the right to change the appearance, specification, etc. without prior notice. compressed air. 4. The work pressure/maximum work pressure refers to gage pressure.

Model description



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OIL-FREE SCROLL



ALC: N

Reliable and stable

- The vortex disc of the scroll compressor works at high temperature due to lack of lubricating oil during operation. The Neo involute tooth profile technology developed by Hitachi has well solved the problem of vortex disk thermal deformation at high temperature and virtually ensured the reliability of the scroll compressor.
- Bearings with High-reliability surface treatment.

Low vibration and low noise

• Optimized scroll compressor cabinet design, low noise close to the library environment. (3.7KW model, noise value is only 47dB[A])

▲ Imported motor ▲ Oil-free air compression ▲ Ultra-quiet ▲ Intelligent control

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Easy maintenance

- Medium-term maintenance cycle extended to five years or 12500 hours from the original four years or 10000 hours. * The maintenance cycle for the 1.0MPa pressure compressor is still four years or 10,000 hours.
- By increasing oiling port, can fill up oil grease without removing the scroll disk of the scroll compressor. Simplified the maintenance process.



Energy-saving under multi - compressor compound control

Based on the P mode control, added multi-compressor compound control, which can switch between two unites by simple operation on the control panel. Under the multi-compressor compound control mode, it automatically controls the number of compressors running according to the intake air consumption, while the required air pressure guaranteed the compressor operation is optimized.



P mode control

Same as the pressure switch control mode, if the pressure reaches the maximum pressure, the compressor stops running. When the pressure reaches the restored pressure, the compressor starts again.

Multi-compressor compound control

Compressor exhaust pressure automatically controlled around the required pressure (control pressure). Avoid power consumption required for the pressure to reach the maximum pressure, thus achieving energy-saving operation.

Function behind

Several scroll compressors linked together if one of the compressors fails the rest of the compressors still can guarantee the continuous air supply.

• The air displacement will be smaller than the standard specification.

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Optimized cabinet design

Save installation area

Low vibration and low noise

UW Series oil - free scroll compressor model parameters

Model	Nominal Power (kW)	Work pressure/ maximum work pressure (bar)	FAD (m ³ /min)	Outlet dimension	Scroll Qty	Weight (KG)	Profile dimension (mm)
UW2.2-8	2.2	8	0.25	G1/2	1	240	800*700*1250
UW2.2-10	2.2	10	0.20	G1/2	1	240	800*700*1250
UW3.7-8	3.7	8	0.40	G1/2	1	270	800*700*1250
UW5.5-8	5.5	8	0.60	G1/2	1	300	800*700*1250
UW5.5-10	5.5	10	0.50	G1/2	1	300	800*700*1250
UW7.7-8	7.7	8	0.88	Rp1	2	470	1350*850*1320
UW7.7-10	7.7	10	0.70	Rp1	2	470	1350*850*1320
UW11-8	11	8	1.20	Rp1	2	500	1350*850*1320
UW11-10	11	10	1.00	Rp1	2	500	1350*850*1320
UW16.5-8	16.5	8	1.80	Rp1	3	650	1350*850*1800
UW16.5-10	16.5	10	1.50	Rp1	3	650	1350*850*1800
UW18.7-8	18.7	8	2.00	Rp1-1/4	4	800	1450*1700*1780
UW18.7-10	18.7	10	1.80	Rp1-1/4	4	800	1450*1700*1780
UW22-8	22	8	2.50	Rp1-1/4	4	800	1450*1700*1780
UW22-10	22	10	2.20	Rp1-1/4	4	800	1450*1700*1780
UW30-8	29.7	8	3.25	Rp1-1/4	6	900	1450*1700*1780
UW30-10	29.7	10	2.70	Rp1-1/4	6	900	1450*1700*1780
UW33-8	33	8	3.60	Rp1-1/4	6	900	1450*1700*1780
UW33-10	33	10	3.00	Rp1-1/4	6	900	1450*1700*1780
Remark							

The corresponding parameters may be adjusted according to the industry or different operating conditions, design drawing provided shall prevail.



MAGENETIC SUSPENSION TURBO AIR BLOWER



Tesreonic



Core bearing



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Ultra-high speed permanent magnet motor technology

Electromagnetic bearing technology

Magnetic Controller:

using Swiss MECOS, the leader in the field of magnetic bearing control, to effectuate automatic calibration and automatic identification with its high reliability and stability;

Magnetic Suspension Bearing:

complete potting ensures long life; The proprietary dynamic self-tuning and reset control algorithm has ultra-high stability compared with other similar products;

Special High Reliability Inductive Displacement Sensor: This technology has been into many scenarios and cases in the field of magnetic high-speed industrial equipment in the developed countries, which has higher stability and higher application limit than eddy current sensor.



High strength and high precision aviation aluminum alloy;

3-D flow impeller manufactured by high-speed 5-axis linkage milling

Passing 115% overspeed test

Able to achieve flow adjustment (40%-105%) With high efficiency and good flow property



Permanent magnet synchronous Motor (PM Motor) has an efficiency of over 97%.

The high speed motor is directly coupled to drive, and the power transmission efficiency is 98%.

Special air duct design, the motor has a good cooling effect.

			_
		Air Su	JSk
Pressure rise Rated power (kw) (kPa) Model	50	60	
TB55M-060	42	50	
TB55M-080	42	50	
TB55M-100	42	50	
TB75M-060	70	65	
TB75M-080	70	65	
TB75M-100	70	65	
TB100M-050	52		
TB100M-070	52	58	
TB100M-090	52	58	
TB100M-110	52	58	
TB110M-050	64		
TB110M-070	64	68	
TB110M-090	64	68	
TB132M-050	98		
TB132M-070	98	100	
TB132M-090	98	100	
TB201M-050	132		
TB201M-070	132	130	
TB201M-090	132	130	
TB200M-050	137		
TB200M-070	137	145	
TB200M-090	137	145	





ensio	n blower	series		
70	80	90	100	110
45	40			
45	40	35	30	
60	45			
60	45	40	35	
56				
56	52	47		
56	52	47	40	33
66				
66	65	60		
95				
95	80	60		
125				
125	120	110		
140				
140	130	120		

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AFTER TREATMENT





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REFRIGERATED COMPRESSED AIR DRYER



Maximum Intake Temperature: 60°C

Ambient Temperature Range: 5°C-50°C

Pressure range: 0.6-1.6 Mpa (0.5-12Nm³/min) 0.6-1.0 Mpa (15Nm³/min and above)

Pressure Dew Point: 2~10°C Cooling Mode: Air Cooled/Water Cooled

Refrigerant: R134a at 2-5 Nm³/min, R407C at 3-80Nm³/min, and R22 at above 80Nm³/min



The Working Principle Of Refrigerated Dryer

How it works: The volume of water vapour in the compressed air is determined by the compressed air temperature. Under the condition of same compressed air pressure, reducing the compressed air temperature can reduce the volume of water vapour in the compressed air, and the excess water vapour will condense into a liquid. According to the corresponding relationship between the saturated vapour pressure and temperature of the water, using the refrigeration equipment to cool the compressed air to a specific dew point temperature, precipitate the contained water, and discharge the water through the air and water separator and electric drain, to dry the compressed air.

Features Of Refrigerated Dryer

- To ensure the equipment can run appropriately at the ambient temperature of 50°C
- Air flow of 1-80 m³ uses eco-friendly refrigerant; the using of three-in-one plate/plate-fin heat exchanger (which combines heat regenerator, evaporator and air-liquid separator) makes excellent heat exchange effect; simple and compact structure makes it beautiful; modular refrigeration components makes it easily disassemble, repair, and replaced.

- The air flow over than 80m³ uses R22 refrigerant, shell-and-tube heat exchanger; the gas-liquid separator uses a patent design of a three-stage separation mode of "Direct impact separation + low-speed centrifugal separation + stainless steel mesh demisting separation". It separates 99.9% of liquid water from the refrigerated
- compressed air to prevent the secondary evaporation of water and ensure the low dew point of the compressed air. The refrigeration compressor can select DANFOSS (Danmark), Fusheng (Taiwan), PANASONIC (Japan), BITZER (Germany), COPELAND (Germany), MANEUROP (France) and others' fully closed or semi-closed refrigeration compressor, stable operation, low noise, high COP, reliable performance and durable;
- Refrigeration control components can select the world's most advanced DANFOSS (Danmark), EMERSON (USA), SPORLAN (USA) and other brands;
- Display running parameters in real time.

Equipment Selection Table

Equipment selection under different working conditions can determine by below formula calculation

> Processing capacity selection= actual processing capacity x (coefficient C1 x coefficient C2 x coefficient C3)

• According to DIN ISO7183, the design of the refrigerated dryer is based on the following parameters: inlet air temperature 38 °C, ambient temperature 38 °C, working pressure 0.7MPa • Pressure loss: <3% of design pressure. For different working pressure and temperature, consider the following correction coefficient for equipment selection.

Table 1: Compressed Air Inlet Temperature Correction Coefficient (C1)

Inlet Temperature (°C)	30	35	38	40	45	50	55	60
Correction Coefficient	1.3	1.1	1.0	1.0	0.78	0.64	0.53	0.46

Table 2: Compressed Air Pressure Correction Coefficient (C2)

Inlet Pressure (MPa)	0.4	0.5	0.6	0.7	0.8	0.9	1.0
Correction Coefficient	0.63	0.75	0.88	1.0	1.04	1.07	1.1

Table 3: Ambient Temperature Correction Coefficient (C3) (Only for Air-Cooled)

Ambient Temperature (°C)	20	25	30	35	38	40	45	50
Correction Coefficient	1.16	1.12	1.08	1.03	1.00	0.98	0.80	0.70



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Item Model	Air Processing Capacity (Nm³/min)	Voltage (V)	Fan Power (W)	Air Hose Connection Diameter	Net Weight (Kg)	Length (mm)	Width (mm)	Height (mm)	Air Volume (Nm³/h)
DSA-12E	1.2	220	40	G1"	36	400	560	730	410
DSA-26E	2.5	220	50	G1"	45	460	580	820	820
DSA-38E	3.6	220	85	G1"	54	520	640	890	1000
DSA-56E	5	220	165	G1 ¹ / ₂ "	60	540	700	1000	1850
DSA-69E	6.8	220	165	G1 ¹ / ₂ "	65	700	550	1170	1850
DSA-85E	8.5	220	170	G2"	76	700	600	960	3700
DSA-107E	10.9	380/220	150	G2"	88	820	700	1040	3700
DSA-140E	12.8	380/220	150	G2"	88	820	700	1040	3700
DSA-180E	16	380/220	380	DN65	255	1170	920	1420	7600
DSA-230E	22	380/220	380	DN65	260	1170	920	1420	7600
DSA-285E	26.8	380/220	460	DN80	290	1170	920	1420	9000
DSA-320E	32	380/220	840	DN80	350	1400	1200	1600	12500
DSA-460E	43.5	380/220	1100	DN100	485	1400	1200	1600	15000
DSA-550E	53	380/220	920	DN100	800	1600	1400	1650	18000
DSA-650E	67	380/220	920	DN125	1000	1600	1400	1650	18000
DSA-850E	90	380/220	2200	DN125	1280	1800	1500	1770	30000

Air-Cooled Compressed Air Dryer (Plate-Fin Type)

Water-Cooled Compressed Air Dryer (Plate

Item	Air Processing Capacity (Nm³/min)	Voltage (V)	Circulating Capacity Of Cooling Water (m³/h)	Air Hose Connection Diameter	Air Volume	Net Weight (Kg)	Length (mm)	Width (mm)	Height (mm)
DSW-85E	8.5	220	1.2	G2"	R1"	140	700	600	960
DSW-107E	10.9	380/220	1.6	G2"	R1"	180	820	700	1040
DSW-140E	12.8	380/220	1.6	G2"	R1"	180	820	700	1040
DSW-180E	16	380/220	2.2	DN65	R1"	200	1170	920	1420
DSW-230E	22	380/220	2.4	DN65	R1"	270	1170	920	1420
DSW-285E	26.8	380/220	2.6	DN80	R1 ¹ / ₂ "	290	1170	920	1420
DSW-320E	32	380/220	3.4	DN80	R1 ¹ / ₂ "	410	1400	1200	1600
DSW-460E	43.5	380/220	4.6	DN100	R1 ¹ / ₂ "	495	1400	1200	1600
DSW-550E	53	380/220	5.8	DN100	1-1/2	850	1600	1200	1600
DSW-650E	67	380/220	7.2	DN125	1-1/2	1100	1600	1400	1650
DSW-850E	90	380/220	9.1	DN125	1-1/2	1500	1800	1500	1770

■ Water-Cooled Compressed Air Dryer (Shell-Hose Type)

Item Model	Air Processing Capacity (Nm³∕min)	Voltage (V)	Circulating Capacity Of Cooling Water (m³/h)	Air Hose Connection Diameter	Air Volume	Net Weight (Kg)	Length (mm)	Width (mm)	Height (mm)
DSW-110E	110	380/220	14.6	DN150	R2"	2430	2410	1135	1976
DSW-140E	130	380/220	16.2	DN150	R2"	2500	2600	1355	2144
DSW-170E	160	380/220	18.6	DN200	R2 ¹ / ₂ "	2800	2970	1500	2374

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Heatless Regeneration Adsorption Compressed Air Dryer

■ 10 min standard cycle;

- Pressure dew point can reach to 20 °C ~ 40 °C;
- Air consumption for regeneration $\leq 14\%$;
- With stable and reliable switch valve, to ensure the integrity of the work process and to extend the service life of the components;
- The activated alumina is with high hygroscopicity, uniform shape and size, high strength, low output dew point, less dust, and long service life;
- Can adjust the amount of regeneration air according to the operating load requirements of the equipment to achieve the effect of energy-saving;
- Unique air diffusion device and automatic regeneration to ensure the service life of the desiccant;
- The programmable micro-chip controller can adjust the working time for adsorption and regeneration to meet the desired dew point value.

Micro-Heat Regeneration Adsorption Compressed Air Dryer

- 2-6 hours standard circulation;
- The pressure dew point can reach $-20^{\circ}C \sim -40^{\circ}C$;
- Air consumption for regeneration \leq 7%
- With stable and reliable switch valve, to ensure the integrity of the work process and to extend the service life of the components;
- The activated alumina is with high hygroscopicity, uniform shape and size, high strength, low output dew point, less dust, and long service life;
- The unique design of the regeneration pipeline ensures that the regeneration gas can be evenly distributed when the regeneration gas is horizontally heated and cold-blown, so that the adsorbent at the central part of the adsorption tower can be evenly heated, the heat dissipation is fast, and the regeneration is complete;
- The heater design considered good dehumidification and regeneration effects, low air consumption, high heating efficiency, and minimizes energy consumption;
- The programmable micro-chip controller can adjust the cycle time, adsorption and regeneration work time, and heating time to meet the desired dew point value.

Table 1: Correction Factor Of Pressure (CFP)

Intake Pressure	MPa	0.5	0.6	0.7	0.8	0.9	1.0
	CFP	0.75	0.88	1.00	1.13	1.25	1.38

Table 2: Correction Factor Of Temperature (CFT)

Intake	°C	20	25	30	35	38	45
Air Temperature	CFT	1.1	1.0	1.0	0.78	0.64	0.53

Selection Process

- When selecting the correction coefficient (CFP) for the air inlet pressure of the dryer, the pressure loss of the pre-filter in the system must be considered.
- Select the correction coefficient of air inlet temperature (CFT) of the dryer.
- Model selection calculation formula: Model selection processing volume = actual processing volume + (CFPxCFT)





Maximum Intake Air Temperature: 45°C Pressure Range: 0.5-1.0MPa Pressure Dew Point: -20°C ~ -40°C Intake Oil Content: ≤0.1ppm Air Consumption For Regeneration: ≤14% Control Method: Microcomputer Automatic Control/PLC Control Power Supply: AC 220V/50Hz Period: T=10(min)

Working Conditions:

Inlet Air Temperature: 38 °C Ambient Temperature: 38°C Working Pressure: 0.7Mpa Pressure Loss: ≤3% of Design Pressure



ltem odel	Air Processing Capacity (Nm³/min)	Desiccant Weight (Kg)	Air Hose Connection Diameter	Net Weight (Kg)	Length (mm)	Width (mm)	Height (mm)
DSH-1E	1.2	24	G1"	165	732	550	1427
DSH-2E	2.5	40	G1"	235	732	550	2017
DSH-3E	3.6	60	G1"	355	962	530	1711
DSH-5E	4.8	85	G1 ¹ / ₂ "	385	842	550	2225
DSH-6E	6.8	120	G1 ¹ / ₂ "	480	950	550	2105
DSH-8E	8.5	158	G2"	600	1288	603	2231
)SH-10E	10.9	190	G2"	755	1288	613	2331
)SH-14E	12.8	190	G2"	755	1288	613	2331
)SH-18E	16	310	DN65	775	1310	774	2329
)SH-23E	22	492	DN65	1030	1410	769	2390
)SH-28E	26.8	578	DN80	1200	1510	818	2774
)SH-32E	32	600	DN80	1220	1565	815	2501
)SH-46E	43.5	856	DN100	1640	1854	963	2687
)SH-55E	53	1002	DN100	1650	1900	978	2707
)SH-65E	67	1334	DN125	2390	2166	1100	2869
)SH-85E	90	1608	DN125	2900	2864	1059	2857
SH-110E	110	2000	DN150	3800	3460	1230	3048
SH-140E	130	2435	DN150	4330	3560	1305	3094
SH-170E	160	2926	DN200	5270	3960	1450	3332

Model Specifications & Performance Parameters

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Maximum Intake Air Temperature: 45°C Pressure Range: 0.5-1.0MPa Pressure Dew Point: -20°C ~ -40°C Intake Oil Content: ≤0.1ppm Air Consumption For Regeneration: ≤7% Control Method: Microcomputer Automatic Control/PLC Control Power Supply: 1-6Nm³/min uses AC 220V/50Hz 8Nm³/min and above Uses AC 380V/220V/50Hz Period: T=2~6(h) Working Conditions: Inlet Temperature: 38°C

Ambient Temperature: 38°C Working Pressure: 0.7Mpa Pressure Loss: ≤3% Of Design Pressure

DSG-1E 1.2 24 G1' 185 812 611 1417 DSG-2E 2.5 1.2 40 G1" 255 732 611 2017 DSG-3E 3.6 1.5 60 G1" 340 962 638 1711 $G1\frac{1}{2}$ DSG-5E 5.0 85 450 2.1 842 624 2225 $G1\frac{1}{2}$ DSG-6E 6.8 120 630 950 632 2105 3 DSG-8E 8.5 4 158 G2" 680 1288 711 2231 DSG-10E 10.9 5 190 G2" 810 1288 711 2331 DSG-14E 12.8 5 190 810 1288 711 2331 G2" DSG-18E 16 310 DN65 875 1310 804 2310 6 DSG-23E 22 1130 1410 796 2371 8 492 DN65 DSG-28E 26.8 10 578 DN80 1320 1510 846 2746 DSG-32E 32 12 1335 1565 863 2473 600 DN80 DSG-46E 43.5 DN100 1800 1854 1032 2639 15 856 DSG-55E 53 18 1002 DN100 2010 1900 1047 2659 DSG-65E 67 22 1334 DN125 2585 2166 1123 2803 DSG-85E 90 DN125 3060 2864 1350 2857 27 1608 DSG-110E 110 DN150 4080 3460 1605 3048 36 2000 DSG-140E 130 42 2435 DN150 4600 3560 1675 3094 DSG-170E 160 54 2926 DN200 5600 3960 1800 3332

Model Specifications & Performance Parameters

Combined low Dew Point Compressed Air Dryer



Product Introduction

- Low dew point: The combined low dew point compressed air dryer can reach an extremely low dew point, and the temperature of -70°C can be reached.
- air consumption, significantly reducing compressed air consumption.
- Can provide compressed air with different dew points for a variety of air uses.
- quality of the compressed air.
- run separately or simultaneously.
- components;
- The refrigeration compressor can select DANFOSS (Danmark), Fusheng (Taiwan), PANASONIC (Japan), BITZER (Germany), COPELAND (Germany), MANEUROP (France) and others' fully closed or semi-closed refrigeration compressor, stable operation, low noise, high COP, reliable performance and durable;

Working Principle

How it works: The combined low dew point compressed air dryer is assembled by a refrigerated compressed air dryer and a heatless or heated adsorption dryer through reasonable pipeline connection and volume. Refrigerated compressed air dryer has a strong water removal capacity with low operation energy consumption and without air loss. Adsorption compressed air dryer can reach a low dew point. The combination of both type of dryer makes the advantages of them can be maximum to the most.

conventional dew point can reach -40°C below. According to different user requirements, a minimum dew point

Low energy consumption: The combined low dew point compressed air dryer requires only 3% to 5% of regeneration

The gas-liquid separator adopts a patented three-stage separation method: direct impact liquid water is separated from the refrigerated compressed air to prevent the secondary evaporation of water and ensure the low dew point

All operating switches and part display instrument of refrigerated air dryer is on the panel of boxboard. According to customer's needs, the refrigerated compressed air dryer and the adsorption regenerated compressed air dryer can

With stable and reliable switch valve, to ensure the integrity of the work process and to extend the service life of the

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Air-Cooled

Maximum Intake Air Temperature: 45°C Ambient Temperature Range: 5°C-50°C Pressure Range: 0.6-1.0MPa Pressure Dew Point: -20°C~40°C Air Consumption For Regeneration: 3-5% Cooling Method: Air Cooling Intake Oil Content: ≤0.1ppm Power Supply: 1-12m³: AC 220V/50Hz 15m³ and above: AC 380V/220V/50Hz

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Period: T=40(min) Working Conditions: Inlet Temperature: 38 C Ambient Temperature: 38 C Working Pressure: 0.7Mpa Pressure Loss: <3% Of Design Pressure

Item Model	Air Processing Capacity (Nm³/min)	Desiccant Weight (Kg)	Air Hose Connection Diameter	Air Volume (Nm³/h)	Fan Power (W)	Voltage (V)	Net Weight (Kg)	Length (mm)	Width (mm)	Height (mm)
DSZG-1E	1.2	25	G1"	745	1x50	220	400	1080	850	1460
DSZG-2E	2.5	40	G1"	745	1x50	220	440	1100	900	2050
DSZG-3E	3.6	60	G1"	1330	1x100	220	460	1200	1000	1808
DSZG-5E	5.0	85	G1 ¹ / ₂ "	2670	1x135	220	660	1290	1030	2263
DSZG-6E	6.8	105	G1 ¹ / ₂ "	4500	1x230	220	775	1500	1105	1931
DSZG-8E	8.5	150	G2"	5340	2x135	220	970	1500	1240	2016
DSZG-10E	10.9	185	G2"	5340	2x135	220	1120	1500	1240	2316
DSZG-14E	12.8	185	G2"	5340	2x135	220	1120	1500	1240	2316
DSZG-18E	16	275	DN65	7600	2x190	380	1670	1960	1450	2196
DSZG-23E	22	395	DN65	7600	2x190	380	1740	1980	1600	2475
DSZG-28E	26.8	495	DN80	9000	2x230	380	2100	2270	1700	2505
DSZG-32E	32	605	DN80	9000	2x230	380	2200	2420	1780	2519
DSZG-46E	43.5	725	DN100	12500	2x420	380	2784	2540	1900	2637
DSZG-55E	53	860	DN100	13500	3x230	380	3094	2600	2350	2638
DSZG-65E	67	1005	DN125	18750	3x420	380	3421	2540	2450	2719
DSZG-85E	90	1335	DN125	25000	4x420	380	4200	2640	2600	2818

Water Cooled

Maximum Intake Air Temperature: 45°C Ambient Temperature Range: 5°C-50°C Pressure Range: 0.6-1.0MPa Pressure Dew Point: -20°C-40°C Air Consumption For Regeneration: 3-5% Cooling Method: Water Cooling (Industrial Circulating Cooling Water) Cooling Water Pressure Range: 0.2~0.4MPa Cooling Water Inlet Temperature: 32°C Air Intake Oil Content: ≤0.1ppm

Item Model	Air Processing Capacity (Nm³/min)	Desiccant Weight (Kg)	Air Hose Connection Diameter	Cooling Water Pipe Diameter	Cooling Water Circulation (m³/h)	Voltage (V)	Net Weight (Kg)	Length (mm)	Width (mm)	Height (mm)
DSZH-6E	6.8	105	G1 ¹ / ₂ "	R1"	1.2	220	760	1500	1160	1940
DSZH-8E	8.5	150	G2"	R1"	1.2	220	960	1500	1100	2016
DSZH-10E	10.9	185	G2"	R1"	1.6	220	1120	1500	1240	2316
DSZH-14E	12.8	185	G2"	R1"	1.8	220	1120	1500	1240	2316
DSZH-18E	16	275	DN65	R1"	2	380	1660	1960	1450	2196
DSZH-23E	22	395	DN65	R1 ¹ / ₂ "	3	380	1740	1970	1600	2475
DSZH-28E	26.8	495	DN80	R1 ¹ / ₂ "	3.6	380	2075	2030	1630	2505
DSZH-32E	32	605	DN80	R1 ¹ / ₂ "	4.6	380	2200	2240	1840	2519
DSZH-46E	43.5	725	DN100	R1 ¹ / ₂ "	5.6	380	2784	2360	1900	2637
DSZH-55E	53	860	DN100	R1 ¹ / ₂ "	7.2	380	3144	2400	2000	2638
DSZH-65E	67	1005	DN125	R1 ¹ / ₂ "	9.2	380	3361	2540	2100	2719
DSZH-85E	90	1335	DN125	R1 ¹ / ₂ "	10.8	380	4500	2640	2450	2818
DSZH-110E	110	2155	DN150	R1 ¹ / ₂ "	12.4	380	6650	2680	2670	2985
DSZH-140E	130	2650	DN150	R2"	14.6	380	7810	2820	2800	3041
DSZH-170E	160	3205	DN200	R2"	16.2	380	8500	3290	3130	3190

Power Supply: 1-12m³: AC 220V/50Hz 15m³ and above: AC 380V/220V/50Hz Period: T=40(min) Refrigerant: R22 (R407C/R134a optional) Working Conditions: Inlet Air Temperature: 38 °C Ambient Temperature: 38 °C Working Pressure: 0.7Mpa Pressure Loss: <3% Of Design Pressure



Compressed Air Precision Filter

Filter Element Filtration Accuracy Grade

	Grade V	Grade A	Grade B	Grade AC	Grade AD
Function	Pre-Filteration	Rear Filteration	Precise Filteration	Deodorizing Activated Carbon Filtration	Sterilization Filteration (Stainless Steel Tank)
Particle Size	3µm	1µm	0.01µm	0.01µm	Oil-Free, Odorless, Sterile, Low Dew Point
Residual Iil	5ppm	1ppm	0.01ppm	0.003ppm	

AD-grade sterilization filter effectively blocks bacteria and phages in the compressed air and regularly eliminates bacteria

through steam (200°C). The filter element can regenerate 100 times.

When using at a pressure other than 7bar, the flow rate of the air compressor must multiply the correction factor listed in the following table and then select the required precision filter model

Pressure	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Correction Factor	0.38	0.53	0.65	0.75	0.80	0.90	1.0	1.10	1.15	1.20	1.25	1.30	1.35	1.40	1.45	1.50

■ UF Specification Table

Madal	Air Flow	Connection Size	Maximum		Dimer	nsion (mm))
Model	(m³/min)	I hread (Flange)	Working Pressure (bar)	L	Н	h	
UF13C **-00	1.3	G¹∕₂"		104	243	217	2.5
UF29C **-00	2.9	G1 ½"		138	424	385	4.8
UF36C **-🗆	3.6	G11/2"		138	424	385	
UF56C **-00	5.6	G11/2"		138	424	385	
UF72C **-00	7.2	G1 1⁄2"		138	624	585	
UF85C **-00	8.5	G11/2"		148	685	639	
UF112C **-00	11.2	G1 ½"		148	685	639	
UF138C **-00	13.8	G2 "		148	685	639	
UF180C **-00	18	DN65		300	940	770	
UF210C **-00	21	DN80		400	870	467	
UF260C **-00	26	DN80		400	870	467	
UF320C **-00	32	DN100		500	890	472	
UF460C **-00	46	DN100		500	890	472	
UF520C **-00	52	DN100		500	890	472	
UF600C **-00	60	DN150		700	1035	503	
UF760C **-00	76	DN150		700	1035	503	
UF820C **-00	82	DN150		700	1035	503	
UF1000C**-00	100	DN200		824	1593	1333	
UF1300C**-00	130	DN200		824	1593	1333	
UF1500C**-00	150	DN250		824	1593	1333	
UF2000C **-00	200	DN250		824	1593	1333	

Note

1. The threaded filter adopts a direct-connected differential pressure gauge;

2.The UF13C-UF112C model can use for internal drainage or external drainage;

3.Model UF138C-UF180C can only use external drainage;

4. The filter connected with the flange adopts the pipeline differential pressure gauge to drain off water; 5. The unit price for ordering flanged filters is: flange housing + filter core + pipeline gauge + external drainage.

The above parameters were obtained at 7bar. "**" indicates the accuracy level of the filter core; " " Indicates: 00-manual drain valve without pressure difference gauge; 0D- automatic drain valve without pressure difference gauge; MD-with pressure difference gauge and automatic drain valve; "AD" installation size, please request from UCS sales engineer.

Filter Elements Pre-filteration Microfiber Backflow Prevention Grill



Anatomy Diagram



UF13-85C

UF112C~2000B

Compressed Air Pressure Vessel

The function of air receiver in air compressor systems

It can not only meet the increase in air consumption demand, but also avoid the adverse effect of air flow fluctuations in the pipeline on the air consumption point. Cool the compressed air, discharge the moisture in the compressed air, reduce the load of the dryer, and save more energy. Reduce the unloading time of the air compres- sor and reduce the energy consumption of the air compressor.

Stand Position Diagram

SR: Hand hole when $\Phi \leq 1000$ mm Manhole when $\Phi \leq 1000$ mm





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Features of Compressed Air Receiver and hardness of steel. vessel body is anti-corrosive and durable. 100% non-destructive inspection.

Flange Valve Air Storage Tank Specification				
8bar	10bar	13bar	16bar	
-0.3/0.8	C-0.3/1.0	C-0.3/1.3	C-0.3/1.6	
-0.5/0.8	C-0.5/1.0	C-0.5/1.3	C-0.5/1.6	
-0.6/0.8	C-0.6/1.0	C-0.6/1.3	C-0.6/1.6	
-1.0/0.8	C-1.0/1.0	C-1.0/1.3	C-1.0/1.6	
-1.5/0.8	C-1.5/1.0	C-1.5/1.3	C-1.5/1.6	
-2.0/0.8	C-2.0/1.0	C-2.0/1.3	C-2.0/1.6	
-2.5/0.8	C-2.5/1.0	C-2.5/1.3	C-2.5/1.6	
-3.0/0.8	C-3.0/1.0	C-3.0/1.3	C-3.0/1.6	
-4.0/0.8	C-4.0/1.0	C-4.0/1.3	C-4.0/1.6	
-5.0/0.8	C-5.0/1.0	C-5.0/1.3	C-5.0/1.6	
-6.0/0.8	C-6.0/1.0	C-6.0/1.3	C-6.0/1.6	
-8.0/0.8	C-8.0/1.0	C-8.0/1.3	C-8.0/1.6	
-10/0.8	C-10/1.0	C-10/1.3	C-10/1.6	
-12/0.8	C-12/1.0	C-12/1.3	C-12/1.6	
-15/0.8	C-15/1.0	C-15/1.3	C-15/1.6	
-20/0.8	C-20/1.0	C-20/1.3	C-20/1.6	
-25/0.8	C-25/1.0	C-25/1.3	C-25/1.6	
-30/0.8	C-30/1.0	C-30/1.3	C-30/1.6	
-40/0.8	C-40/1.0	C-40/1.3	C-40/1.6	
-50/0.8	C-50/1.0	C-50/1.3		
-60/0.8	C-60/1.0	C-60/1.3		
-75/0.8	C-75/1.0	C-75/1.3		

Screw Thread Valve Air Storage Tank Specification				
8bar	10bar	13bar	16bar	
0.3/0.8B	C-0.3/1.0B	C-0.3/1.3B	C-0.3/1.6B	
0.5/0.8B	C-0.5/1.0B	C-0.5/1.3B	C-0.5/1.6B	
0.6/0.8B	C-0.6/1.0B	C-0.6/1.3B	C-0.6/1.6B	
1.0/0.8B	C-1.0/1.0B	C-1.0/1.3B	C-1.0/1.6B	
1.5/0.8B	C-1.5/1.0B	C-1.5/1.3B	C-1.5/1.6B	
2.0/0.8B	C-2.0/1.0B	C-2.0/1.3B	C-2.0/1.6B	

Steel: Steel from a large-scale well-known steel mill, strictly controlling the toughness

Welding process: Advanced welding equipment, the welding seam is flat and clean. Spraying and sandblasting: Advanced spraying and sanding equipment to ensure the

Strict inspection: Advanced flaw detection equipment for rigorous welding inspection,

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PATENT PROTECTION

By continually investing in R&D, the product development and new technology application pace accelerated. At present, Shanghai United Compressor Co, Ltd. has registered near 100 national patents covering the critical technology and integrated layout of compressor and integration improvement of parts. These patents address a range of compressor problems, such as internal temperature rise and maintenance difficulties under different operating conditions. Through the unique design and integration, the equipment can better meet the use requirements and services, in line with environmental protection requirements, fully demonstrated the excellent quality of products.



QUALITY ASSURANCE

In 2003, Shanghai United Compressor Co, Ltd. accredited with ISO9001 Quality Management System and ISO14001 Environmental Management System Certificates. The company strictly follows Crosby's "doing it right the first time" and persists in "zero defect" as working standard. Regards "It is immoral to produce a defective product" as the criteria of measuring the quality, the company devotes itself to the continuous improvement of products all the time.



