

JUHENG PRODUCT CATALOGUE



Introduction

Beijing Juheng Xinzhan Environmental Protection Technology Co., Ltd. is a production and design company to industrial heating equipment, such as hot air curtains, PTC heaters, electric heating fans, heating equipment, and wireless intelligent control systems for heating and cooling. We mainly produce over a hundred types of products, including Juheng brand air curtains, axial/centrifugal side blowing curtain, rotary door arc-shaped air curtain, PTC electric heaters, industrial heating fans, combination air conditioning electric heaters, air duct heaters, polar ultra-low temperature electric heating industrial heating air curtain, specialized air conditioners for high-rise spaces, mining wellhead heaters and drying equipment, wireless control cabinets for high-rise spaces, and large-scale air heating control products. And undertake the design and construction of similar projects.

At the beginning of its establishment, Juheng established the corporate philosophy of high starting, high efficiency, high quality, and strict requirements, as well as the concept of honest operation. With strong development and design technology and excellent quality, as well as the concept of honest operation. With strong development and design technology and excellent quality, high efficiency, high quality, and strict requirements, as well as the concept of honest operation. With strong development and design technology and excellent quality, it designs and customizes corresponding products for customers. The company attaches great importance to the introduction of international front-end technology, research and application of environmental protection technology, and has unique advantages in the industry. It always produces according to ISO9000 standards, ensuring that Juheng products have excellent quality assurance.

All employees of Juheng look forward to your visit guidance and establishing friendly cooperation with you!



Certificate

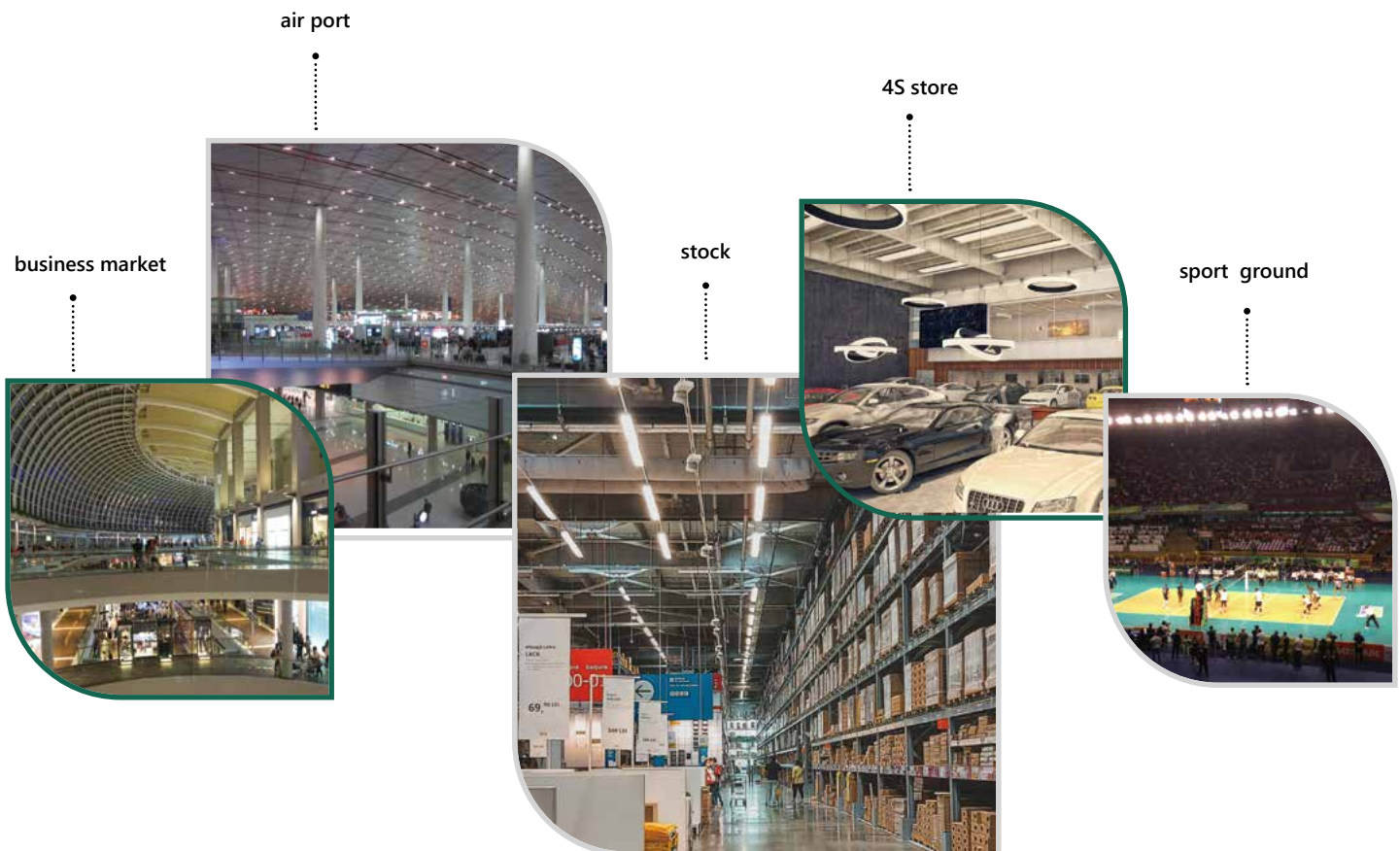




Large space cyclic equipment

The auto control system of big space is developed by Juheng for big workroom/factory/colliery etc. The big space control system connect the heating equipment by LoRa wireless/ WIFI/4G/220-380V power etc, The system can be customized according to the situation and space.

Application



Advantage



Just only one power wire

There are a lot of wire in traditional mode and it is dangerous when install them. And it is very difficulty to maintenance in future. But our wireless control system just need one power wire only.



Intelligent control, efficient and energy-saving

The control system adopts PID (closed-loop control) control technology, which drives the frequency converter to achieve infinite speed regulation and constant temperature control of air volume, stepless adjustment of wind angle, tilt sensor, fresh air function, and humidification function in winter and summer modes. Multi pronged approach, effectively saving over 30% energy.



36 sets can be controled by one only

One controlling system of heating equipment can control 36 sets and the system just like the brain of the heating equipment. Controlling every heating unit so that can solve each area's need of the temperature



Timing on, fault alarm, data collection

4 working periods with timing on and automatic fault reporting Alarm, collect 12 hour host temperature data curve.



Multiple interface options, remote monitoring

According to the equipment to choice 485 agreement interface controlling/wireless intelligent remote APP/PC monitor. Provide customers with year-round operational data recording and cloud remote services. The user can check the equipment working condition in controlling area, temperature of input wind and working area etc datas and can control one or more sets in locally or remote by controlling computer.



Intelligent control logic diagram





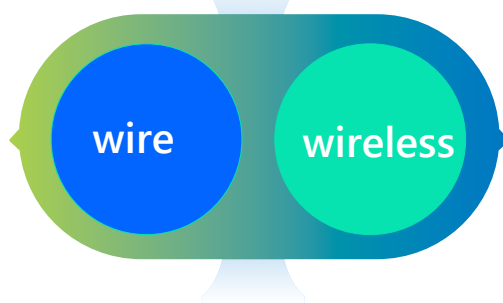
1. Control and relay

01 Controlling system installation

Control and relay

Local wireless centralized control box

The centralized control box can be installed in a convenient position according to needs, and all functions can be controlled and used by providing a 220V power only.



Wireless relay function conversion server

If you need to choose a conversion wireless server, you can install the receiving relay at the desired position and provide a 220V power; Convert 433 wireless signals of high space circulation equipment into WiFi, 4G, 5G, 485 and other Internet signals for PC and mobile phone.

02 Functions of the control system



Monitoring start/stop of the fan :

Manual start/stop, scheduled start/stop during holidays, automatic speed regulation and start/stop of the fans based on return air temperature.



Timing on/off:

Set the on/off time according to the working hours.



Monitor the opening of the air distributor part:

Adjust the angle of the air outlet guide vanes according to different air supply modes. Display indoor temperature and humidity, outlet fan temperature, and return water temperature, the opening degree of fresh air.



Set the on/off time according to the working hours:

In the heating state, a working temperature (18 °C) can be set during working time; During non working time, the duty temperature can be set to 5 °C ; Optional antifreeze model; In heating mode, if the machine does not start for a long time, it will default to entering antifreeze mode.

2. Repeater

If the distance is far, there will be a relay in the middle for signal enhancement. Both wired and wireless can centrally control and detect the entire system in the control room

3. Centralized controller

01 Controller and application equipment

The control system developed and produced by our company is used to control equipment for heating, humidification, dehumidification, fresh air, and refrigeration in large spaces. This product achieves energy-saving temperature control, humidification, dehumidification, and purification of the environmental space through real-time control of power controllable silicon, variable frequency fan, fresh air valve, air supply outlet, etc. through temperature monitoring. The product uses LCD display, and a simple control interface can provide real-time feedback on the operating status.



02 First class hardware configuration

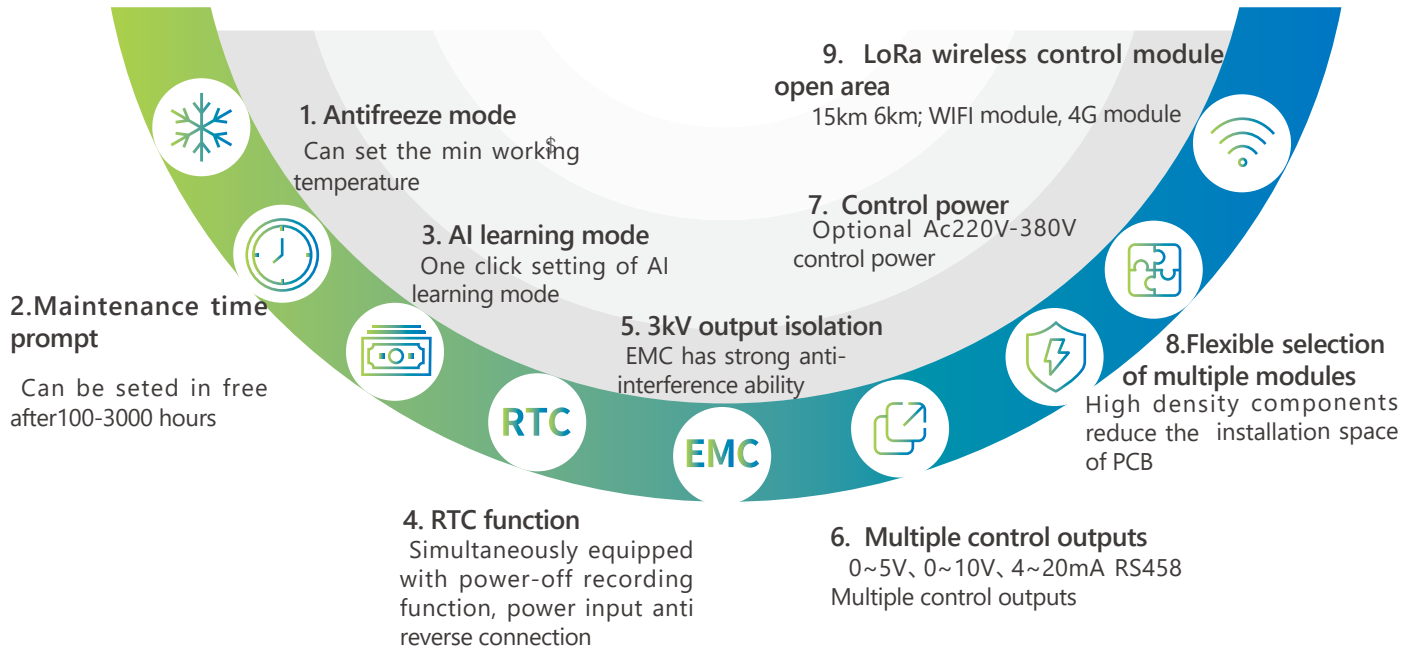
In order to make the control system more user-friendly, easier to operate, and smoother to operate, we and STM have jointly developed the control system for the Juheng large space air conditioning circulating unit. To ensure fast and stable system operation, all components are equipped with high-end accessories. For example, CPU of STMicroelectronics, STM32F407; Motherboard chips produced by Texas Instruments, HOLTEK, TOSHIBA, Nexperia YAGEO, SAMSUNG, and others. Independent Mingwei power module, Beijing Dwin low-temperature industrial control screen; Combined with a comprehensive software system, it achieves single device control and centralized control, and can also achieve segmented and partitioned control.



The main control display adopts a 12.7-inch area with 36 simultaneous monitoring and control displays



03 Detail settings



04 Electrical characteristics of the main board

Unless otherwise specified, VIN=12 V \pm 10% GND=0 TMIN to TMAX=-20 ° C to +65 ° C.

Parameter	Min	Typical value	Max	Unit	Testing condtion/Note
GNDV Voltage	+10.0	+12.0	+15.0	V	VIN to GND Voltage+12V
Short circuit protection current		1000		mA	VIN to GND Voltage+12V
Quiescent current		200	500	mA	VIN to GND Voltage+12V
3.3V Voltage	+3.15	+3.30	+3.45	V	VIN to GND Voltage+12V
5V Voltage	+4.50	+5.00	+5.50	V	VIN to GND Voltage+12V
Isolate 12V voltage	+10.5	+12.00	+13.5	V	VIN to GND Voltage+12V
10+ to 10- output Voltage	0		+12	V	
10+ to 10- output current	4m		20	mA	
U0+output Voltage 1	0	+5	+5.2	V	Set to 0~5V output
U0+output Voltage 2	0	+10	+10.5	V	Set to 0~10V output
IN1,IN2 input current		10	15	mA	IN1, IN2 input +24V
NTC1,NTC2 test temp	-20		+150	°C	
RELAY1,RELAY2 output Voltage			VIN	V	
RELAY1,RELAY2 output current			500	mA	VIN to GND Voltage+12V
RTC battery Current		1	5	uA	
RS485 Baud rate	1200	9600	115200	bps	
Install wireless module					
Wireless transmission current		1000	1500	mA	
Wireless transmission power			30	dBm	
Wireless receiving current		10	50	mA	
Install WIFI module					
WIFI starting current		500	750	mA	
WIFI average current		120	200	mA	
WIFI transmission power		20		dBm	
Install 4G module					
WIFI average current		200	500	mA	
WIFI transmission power		20		dBm	

05 Connection method of centralized controller

Centralized control can be divided into two types: wired and wireless control. Wired control is the process of connecting each device in series through control cables to a centralized control touch screen. The advantage is that the signal is not easily lost, but the disadvantage is that once there are breakpoints, they need to be checked one by one.

Wireless control is achieved through wireless transmitters to control each device. A wireless transmitter needs to be installed on each device. If the distance is far, there will be a relay in the middle for signal enhancement. Both wired control and wireless control can centrally control and detect the entire system in the control room.

A centralized control touch screen can display and connect to 36 devices. The reserved interface type on the centralized control computer is RS485, MODBUS protocol BA communication interface. Our company's independently developed server can be used to achieve remote control by PC and mobile APP.

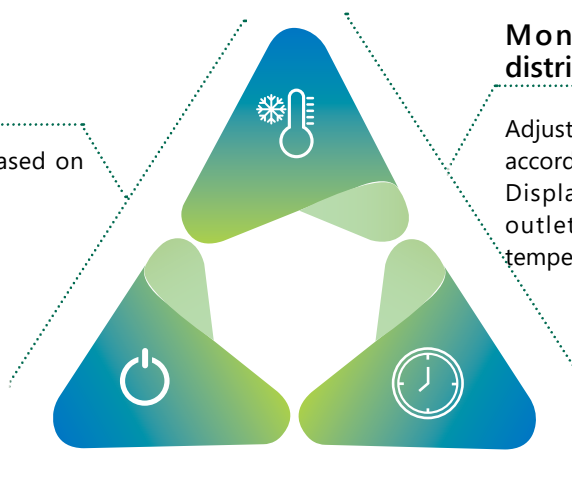
06 The following functions can be achieved on the centralized controlling screen

Timing on/off:

Set the on/off time based on working hours

Monitor the opening of the air distributor part:

Adjust the angle of the air outlet guide vanes according to different air supply modes. Display indoor temperature and humidity, outlet fan temperature, and return water temperature, the opening degree of fresh air.



Set temperature in different time periods:

In the heating state, a working temperature (18 °C) can be set during working hours; During non working hours, the duty temperature can be set to 5 °C; Optional antifreeze model, in heating mode, if the machine does not working for a long time, it will default to antifreeze mode.

Unit mutual learning function, manual mode debugging, timed fan backflow cleaning, fan fault alarm, remote reset to prevent falling and vibration, high temperature alarm, high voltage breakdown and other protective measures, temperature working curve viewing, timed remote appointment maintenance function, and unit maintenance alarm. The optional power distribution thermal type adopts analog PID mode, SCR thyristor stepless adjustment control to Unit mutual learning function, manual mode debugging, timed fan backflow cleaning, fan fault alarm, remote reset to prevent falling and vibration, high temperature alarm, high voltage breakdown and other protective measures, temperature working curve viewing, timed remote appointment maintenance function, and unit maintenance control power consumption.

4. End equipment

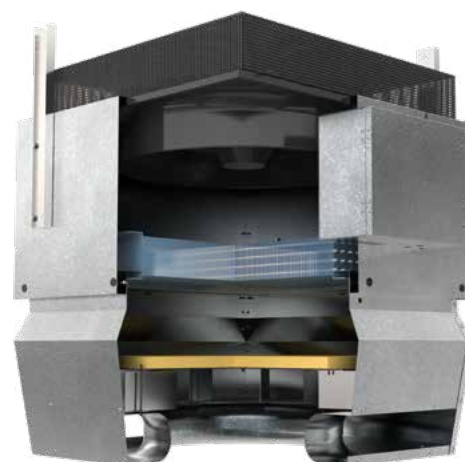
01 Electric heating equipment for industrial high spaces

The equipment is installed on the top of the site to prevent indoor air quality and temperature stratification, improve heat utilization and the user experience of air control components. The gas control components have a compact structure and are lifted as a whole at high altitude, saving ground space; Several gas control components are selected for collaborative assembly, without the need for ventilation ducts. The fresh air system is immediately evenly distributed, with minimal kinetic energy damage and resource savings; Sickle leaf axial flow fan, with large exhaust volume, low energy consumption, and no need for maintenance; It can achieve a wide range of applications, including high-rise space fresh air system supply, mixed air supply, and indoor air circulation. The product has been widely used in tall space venues such as factories, warehouses, airports, locomotive maintenance cores, logistics distribution centers, large sports venues, exhibition halls, vehicle 4S stores, and shopping malls. This unit can achieve long-distance ventilation without ventilation ducts on the premise of cooling, heating, drying, and humidifying functions, saving space, reducing floor height, significantly reducing project investment, and lower operating and usage costs.

Adopting high-efficiency axial flow fan with variable frequency speed regulation, the motor adopts "lifelong lubrication" type bearings

Optional heaters can be matched according to the usage location; Insulated PTC ceramic corrugated heater USA304 stainless steel finned electric heating tube.

Free on-site matching for lifting or side installation; Control options include on-site, wireless, remote, and other linkage controls. Electric heating products do not need to be connected to hot water boilers, suitable for insulation workshops in the north; Specially suitable for flexible work workshops that can be opened and closed at any time.



Name of part	Optional part
Fan	EBM ZIEHL Weiguang
Controller	STMicroelectronics
Wireless controller	Locally wireless/4G/Mobil/PC
Hull of equipment	Yieh Phui Galv and painting
Heat exchanger	copper/SS wing sheet PTC
Frequency converter	Infineon DEL ABB Siemens

02 Independently developing circuit boards achieve to control all-round of space temperature and humidity

Each device is equipped with an independent newly developed circuit board, which can achieve various analog quantity adjustment modes such as refrigeration, heating, humidification, dehumidification, fresh air, and electric heating; Built in electronic horizontal control device to prevent tipping and vibration, ensuring safer operation of the equipment; Each device can independently set temperature, timing, air supply angle, air volume adjustment, humidification amount, fresh air volume, as well as circulation mode, antifreeze mode, etc. In addition, the analog variable air volume energy-saving PID electric heating mode can be controlled by a single main control device to control the start and stop of the equipment in different temperatures and humidity of the coverage area, making the temperature and humidity of the coverage area reach a satisfactory value, and also saving labor and energy costs.



03 Advantages of High rise Space Heating Systems



Advantages of High rise Space Heating Systems



Rapid heating reduces temperature gradient distribution, lowers electricity and heat costs



Can provide different levels of controlling units to achieve equipment controlling automation and modernization



Reduce energy loss on the roof, achieve energy-saving, and achieve an energy-saving rate of over 30%



It is a form of air convection, with mild air quality and high human comfort



Windless air distribution for improved comfort



Can achieve systematic integration of heating, ventilation, and air conditioning, optimizing the HVAC environment of buildings



Distributed setup, controllable investment, safe operation, equipment is easy to operate and simple operation



The intelligent wireless control can achieve intelligent operation of single unit and regional control, starting and stopping at any time according to the setting, flexible operation, and low operating costs.



Installed under the roof truss of the workshop, it does not occupy the floor area and does not affect the process operation of the workshop, making the entire workshop look very clean.

VF AC heating conditon for large sapce I



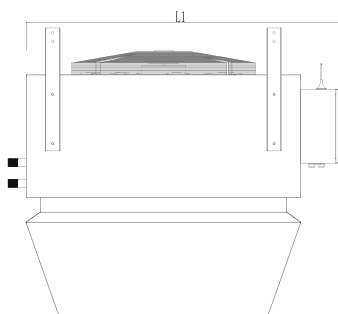
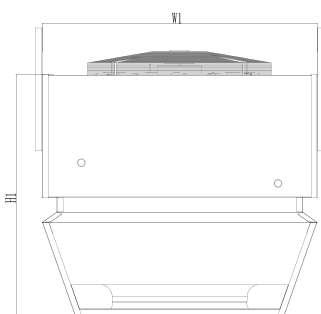
Tech data :

Name	VF AC heating conditon for large sapce		
Model		ATDs-N67-BPa	ATDs-N97-BPa
Speed	min-1	300-920	300-870
Qty	m ³ /h	2900-6700	3700-9700
Voltage	v	380	380
Power	kw	0.85	1.45
Current	A	Max1.6	Max3.4
Heat source	Hot water40-85°C ; Pressure vapor ≥ 120°C		
Heat Qty	kw	46	75
Control	Wireless-long rang-tunable-wine qty		
Install H	m	10M	17M

Working condition parameters :

Model		I/O water Tem°C	Input wind Temp 16°C					Input wind Temp 18°C				
			Heat Qty kw	Output Temp °C	Max installation H	Water Qty kg/h	Water pressure drop kPa	Heat qty kw	Output Temp °C	Max installation H	Water Qty kg/h	water pressure dropk kPa
Variable frequency speed controlled series	ATDs-N67- BP	70/50	48	38	11	2067	5	46	38	11	1981	4
		60/50	44	36	11	3789	10	43	37	11	3703	9
		45/40	32	30	13	5512	22	30	30	13	5167	22
	ATDs-N97- BP	70/50	76	37	17	3273	5	75	37	17	3230	5
		60/50	69	35	18	5943	11	69	36	18	5943	11
		45/40	48	29	20	8268	17	46	30	20	7923	16

External size :



Model	W	H	L
ATDs-N67-BP	900	930	1080
ATDs-N97-BP	1200	1000	1280

HDC=humidification

VF=variable frequency

AC= air conditon E=electric

VF AC heating conditon for large sapce II



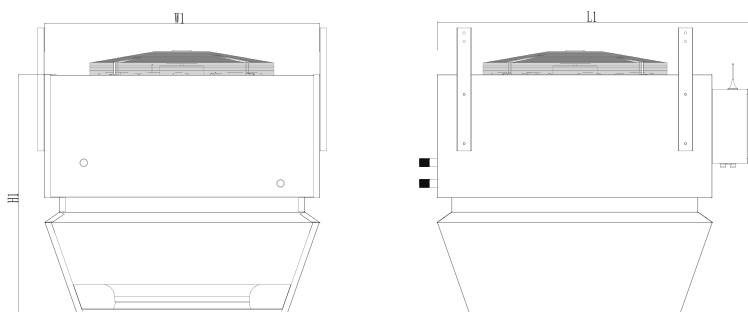
Tech data :

Name	VF AC heating conditon for large sapce II			
Model		ATDs-N67-BP2	ATDs-N97-BP2	ATDs-N101-BP2
Speed	min-1	300-920	300-860	300-860
Qty	m³/h	2900-6700	3700-9700	4800-10100
Voltage	v	380	380	380
Power	kw	0.85	1.45	1.8
Ecurrent	A	Max1.6	Max3.4	Max4.7
Heat Qty	kw	46	75	111
E heat		choice		
HDC Qty	%	Choice15-83		
Control	Choice: wireless-long rang-tunable-wine qty、PC、mobile			
Install H	m	9m or less	17m or less	25m or less

Working condition parameters :

Model		I/O water Tem °C	Input wind Temp 16°C					Input wind Temp 18°C				
			Heat Qty kw	Output Wind Temp °C	Max H installation m	Water Qty kg/h	Water pressure drop kPa	Heat qty kw	Output Wind Temp °C	Max H installation m	Water Qty kg/h	Water pressure drop kpa
Variable frequency speed controled series	ATDs-N67-BP2	70/50	48	38	11	2067	5	46	38	11	1981	4
		60/50	44	36	11	3789	10	43	37	11	3703	9
		45/40	32	30	13	5512	22	30	30	13	5167	22
	ATDs-N97-BP2	70/50	76	37	17	3273	5	75	37	17	3230	5
		60/50	69	35	18	5943	11	69	36	18	5943	11
		45/40	48	29	20	8268	17	46	30	20	7923	16
	ATDs-N101-BP2	70/50	116	43	21	4997	4	111	45	21	4756	4
		60/50	92	39	21	7892	13	87	41	22	7515	12
		45/40	66	33	23	11386	23	63	35	24	10767	20

External size :



Model	W	H	L
ATDs-N67-BP2	900	930	1080
ATDs-N97-BP2	1200	1000	1280
ATDs-N101-BP2	1200	1000	1280

HDC=humidification

VF=variable frequency

AC= air conditon E=electric

Cold/heating/HDC AC for large space



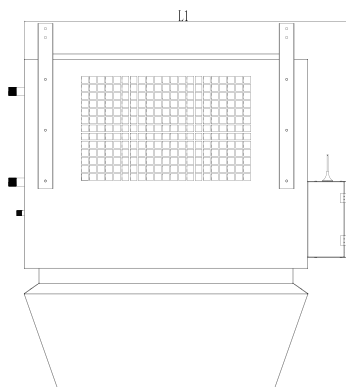
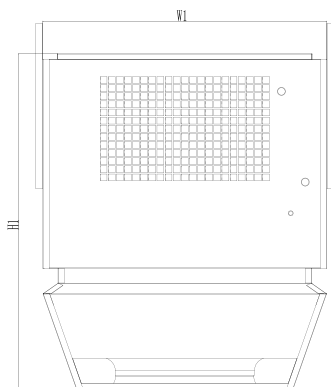
Tech data :

Name	Cold/heating/HDC AC for large space			
Model		ATDs-N67-BP3	ATDs-N97-BP3	ATDs-N101-BP3
Speed	min-1	300-920	300-860	300-860
Qty	m ³ /h	2900-6700	3700-9700	4800-10100
Voltage	v	380	380	380
Power	kw	0.85	1.45	1.8
Current	A	Max 1.6	Max 3.4	Max 4.7
Heat Qty	kw	51	75	111
Fresh air Qty	%	Choice15-83		
New Wind Qty	%	Choice		
Mesh Up/Down		Choice		
Control		Choice: wireless-long rang-tunable-wind qty		
Install H	m	9m or less	15m or less	25m or less

Working condition parameters :

Model		I/O water Temp °C	Input wind Temp16°C					Input wind Temp18°C				
			Heat Qty kw	Output Wind Temp °C	Max H installation m	Water Qtykg/h	water pressure drop kPa	Heat Qty kw	Output Wind Temp °C	Max H installation m	Water Qty kg/h	Water pressure drop kPa
Variable frequency speed controlled series	ATDs-N67-BP3	70/50	48	38	11	2067	5	46	38	11	1981	4
		60/50	44	36	11	3789	10	43	37	11	3703	9
		45/40	32	30	13	5512	22	30	30	13	5167	22
	ATDs-N97-BP3	70/50	76	37	17	3273	5	75	37	17	3230	5
		60/50	69	35	18	5943	11	69	36	18	5943	11
		45/40	48	29	20	8268	17	46	30	20	7923	16
	ATDs-N101-BP3	70/50	116	43	21	4997	4	111	45	21	4756	4
		60/50	92	39	21	7892	13	87	41	22	7515	12
		45/40	66	33	23	11386	23	63	35	24	10767	20

External size :



Model	W	H	L
ATDs-N67-BP3	900	1200	1300
ATDs-N97-BP3	1200	1350	1300
ATDs-N101-BP3	1200	1350	1300

HDC=humidification

VF=variable frequency

AC= air conditon E=electric

Cold/heating/HDC/New wind AC for large space



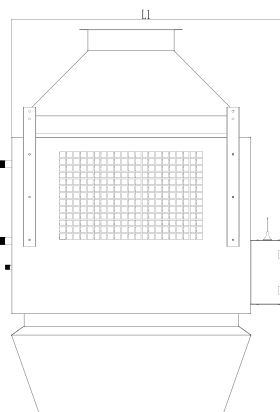
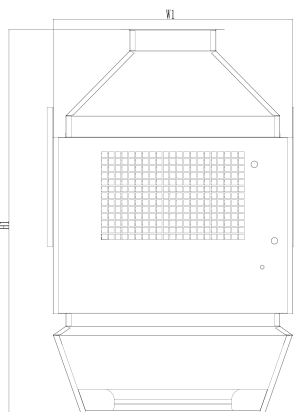
Tech data :

Name		Cold/heating/HDC new wind AC for large space		
Model		ATDs-N67-BP3T	ATDs-N97-BP3T	ATDs-N101-BP3T
Speed	min-1	300-920	300-860	300-860
Qty	m³/h	2900-6400	3700-8700	4800-10100
Voltage	v	380	380	380
Power	kw	0.85	1.45	1.8
Current	A	Max 1.6	Max 3.4	Max 4.7
Heat Qty	kw	51	75	111
HDC Qty	%	Choice15-83		
Fresh air Qty	%	Choice		
Optional parameters	Fresh air rain cover、initial filter screen、automatic ventilation software			
Control	Choice: wireless-long rang-tunable-wind qty			
Install H	m	9m or less	15m or less	25m or less

Working condition parameters :

Model		I/O water Temp °C	Input wind Temp16°C					Input wind Temp18°C				
			Heat Qty kw	Output Wind Temp °C	Max H installation m	Water Qty kg/h	Water pressure drop kPa	Heat qty kw	Output Wind Temp °C	Max H installation m	Water Qty kg/h	Water pressure drop kPa
Variable frequency speed controlled series	ATDs-N67-BP3T	70/50	48	38	11	2067	5	46	38	11	1981	4
		60/50	44	36	11	3789	10	43	37	11	3703	9
		45/40	32	30	13	5512	22	30	30	13	5167	22
	ATDs-N97-BP3T	70/50	76	37	17	3273	5	75	37	17	3230	5
		60/50	69	35	18	5943	11	69	36	18	5943	11
		45/40	48	29	20	8268	17	46	30	20	7923	16
	ATDs-N101-BP3T	70/50	116	43	21	4997	4	111	45	21	4756	4
		60/50	92	39	21	7892	13	87	41	22	7515	12
		45/40	66	33	23	11386	23	63	35	24	10767	20

External size :



Model	W	H	L
ATDs-N67-BP3T	900	1200	1300
ATDs-N97-BP3T	1200	1350	1300
ATDs-N101-BP3T	1200	1350	1300

HDC=humidification

VF=variable frequency

AC= air conditon E=electric

E heating/Circulate/heating system



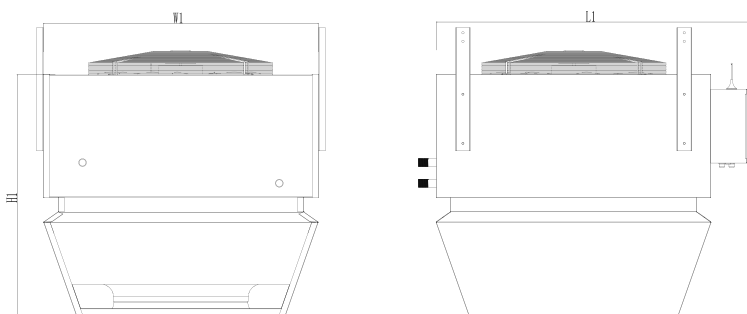
Tech data :

Model		ATDs-N67-D	ATDs-N97-D	ATDs-N101-D
Speed	min-1	300-920	300-860	300-860
Qty	m ³ /h	2900-6700	3700-9700	4800-10100
Voltage	v	380	380	380
Power	kw	40	50	60
Current	A	Max 50	Max 65	Max 85
Heat Qty	kw	38.3	47.6	56.9
HDC Qty	%	Choice15-83		
centralized control		choice		
Heat Type		PTC heating ,SS Electric tube		
Control		Wireless-long rang-tunable-wind qty		
Install H	m	9m or less	15m or less	25m or less

Working condition parameters :

Model		Wind Qty (m ³ /h)	E Heating power (kw)	Air-supply temperature difference 35.5°C		
				Heati Qty (kw)	Air supply Temp (°C)	Max H of installation(m)
E heating/ Circulate/ heating system	ATDs-N67-D	6700	40	38.3	38	11
					36	11
					30	13
	ATDs-N97-D	9700	50	47.6	37	17
					35	18
					29	20
	ATDs-N101-D	10100	60	56.9	43	21
					39	21
					33	23

External size :



Model	W	H	L
ATDs-N67-D	900	930	1080
ATDs-N97-D	1200	1000	1280
ATDs-N101-D	1200	1000	1280

HDC=humidification

VF=variable frequency

AC= air conditon E=electric

PTC\E heating circulate heating system

Tech data :

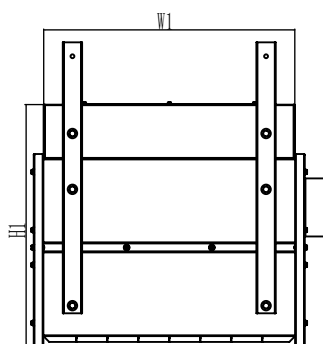
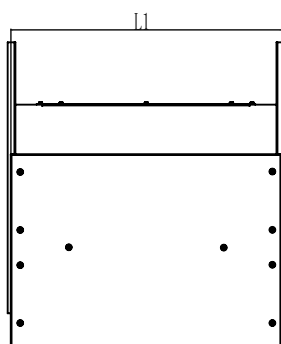


Name	rapid cycling large space electrothermal air heat preservation system			
Model		ADRCs-30	ADRCs-40	ADRCs-50
Speed	min-1	300-920	300-860	300-860
Qty	m ³ /h	2900-6400	3700-8700	7600-10900
Voltage	v	380	380	380
Fan power	kw	0.85	1.1	1.45
Heating power	kw	45	55	65
Current	A	Max 70.5A	Max 86.5A	Max 99A
Heat Qty	kw	43.425	53.075	62.725
Control	Wireless-long rang-tunable-wind qty			
Install H	m	8m /less	10m /less	16m/ less

Working condition parameters :

Model		Wind Qty (m ³ /h)	E heat power(kw)	Air-supply temperature difference 35.5°C		
				Heat Qty (°C)	Air supply Tem(°C)	Max H of installation(m)
Electric heating fixed/variable frequency speed regulation series	ATDs-30	6400	40	38.3	38	11
					36	11
					30	13
	ATDs-40	8700	50	47.6	37	17
					35	18
					29	20
	ATDs-50	10900	60	56.9	43	21
					39	21
					33	23

External size :



Model	W	H	L
ATDs-30	700	650	750
ATDs-40	800	650	850
ATDs-50	800	650	850

HDC=humidification

VF=variable frequency

AC= air conditon E=electric

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