



BSAX/BSAV



Product Introduction

Briese Air's Direct Expansion Modular Air Handling Units integrate the best features of modular air handlers and refrigeration systems, specifically designed to achieve optimal temperature, humidity, cleanliness, and comfort in air-conditioned zones. They can widely cover the constant temperature and humidity or purification needs of partial fresh air, full return air, and full fresh air scenarios. Additionally, they are suitable for custom applications such as deep dehumidification with multiple cooling sources, heat recovery-based constant temperature and humidity, and rapid temperature adjustments.













Briese Air Direct Expansion Outdoor Unit Series

Fixed Frequency Series

The fixed capacity operation mode offers adjustment settings and is available in both heat pump and cooling-only configurations. It enables functions such as temperature and humidity control for recirculated air, purification of recirculated air, and purification of fresh air.



BSAX0030



BSAX0080/0100/0125/ 0150/0200/0250



BSAX0600



BSAX1100/1200

Variable Frequency Series

It features fresh air temperature and humidity control, variable air volume adjustment, year-round cooling, and low dew point dehumidification.

Briese Air Direct Expansion Indoor Unit

BAC BBC Series

The indoor unit is a modular air handling unit, capable of integrating various functional sections such as direct expansion, heating, humidification, and filtration. It offers two panel thickness options, 25mm and 50mm, to meet different requirements for airflow, static pressure, and the temperature and humidity conditions of the equipment room.



BSAV0060



BSAV0080/0100/0120



BSAV0160 BSAV0200/0240/0260



BSAV0280/0300/0320



DX Air Handling Unit

Briese series modular air handling units feature a patented enclosure design and outstanding detailed engineering. They excel in mechanical strength, air tightness, thermal insulation performance, and prevention of cold bridges, setting a benchmark in the industry. (Patent No. ZL 2014 2 0122442.9)

The enclosure performance complies with EN1886 standards and has obtained EUROVENT certification.

Sandwich Structure Insulation **Panels**

High-Density 50kg/m³ Polyurethane Lower Thermal Loss, High Strength with no deformation

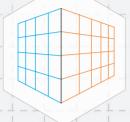
Self-Developed Enclosure Structure

Interlocking Male-Female Module Labyrinth Seal, Aluminum-Plastic Composite Profiles with Co-Extruded Soft and Hard Sealing Strips



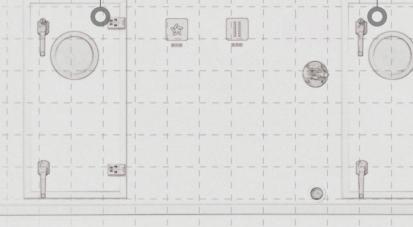
Micro-Modular Design

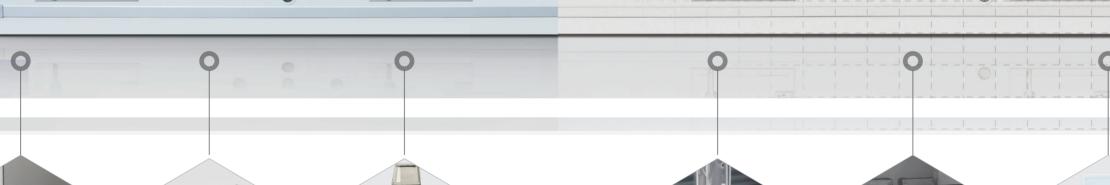
Achieves Full Coil Coverage Within Unit Cross-Section, Reduced Internal Resistance for Enhanced **Energy Efficiency**













Smooth Interior, Clean and Hygienic

Seamless, Smooth Interior Panel Joints

No Dust Deposition in Corners



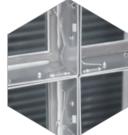
High-efficiency Heat Exchanger

Professional Selection Software. On-Demand Configuration, Optimal Flow Path Design, Ensuring Peak Performance



New Dual V-shaped Water Pan

Rapid Drainage, No Water Accumulation Bacteria-Free



High-Integrity Enclosed Filter Mounting Frame

Airtightness Achieves Highest EN1886 Class Delivers Filtered and Hygienic Air



High-Efficiency Energy-Saving Fan

High-Efficiency EC Fan, High Efficiency, More Energy Efficient, Dust-Free Without Snail Shell Fan and Belt



Aerospace Technology Maintenance Door

Full-Size Door for Convenient Large-Space Maintenance Seamless Integral Foam Door Leaf for Excellent Airtightness Handle Pressure Relief Design Ensures Operational Safety



The Powerful External Team Lineup





- Multi-System/Variable Frequency Design Concept to Reduce Long-Term Partial Load Energy Consumption
- Variable Operating Condition Patented Automatic Control to Avoid Excessive Dehumidification "Cooling and Heating Offset"*
- Energy-Saving System Control Design, Achieving Over 20% Energy Savings in Air Conditioning Systems

5



- All-New Airflow or Low-Load Harsh Condition Interference-Resistant Precise Output
- Effectively Achieving Temperature and Humidity Accuracy of ±1°C, ±5%
- Stable Cooling Source for Low Ambient Temperature Operation, Capable of -10°C Cooling for Industrial Processes



- Micro-HEX Microchannel All-Aluminum Integrated Driving Heat Dissipation Enhancement Technology*
- Wide Ambient Temperature Variable Frequency Operation: Cooling from -10°C to 56°C; Heating from -20°C to 25°C
- Installation with Large Capacity and Long Piping up to 100m



- Bottom single-phase valve for frost prevention heating without frosting, and uniform and rapid defrosting on top.
- Patented adaptive defrost control, multi-module rotation for balanced defrosting.

6

Strong heating effect, defrosting time 3-5 minutes

^{*} Some functions are optional. Consult your local Briese Air branches or offices for detailed configuration.



Intelligent Self-control System



Multifunctional application integration platform

Prefabricated mainstream industry scene control functions, no need for secondary development



Multiple interlocking



Fan variable frequency adjustment



Hot water/steam reheating



Dual cooling self-control



Ozone, ultraviolet disinfection



Electronic purification

Industrial-grade air process control



Automatic adjustment in transition season, no "cold and hot offset" self-developed Patent control



Expert algorithm based on fuzzy control

Adaptive safe operation under all working conditions



Refrigeration ambient temperature: -10~48°C, heating ambient temperature: -15~25°C

*Variable frequency circulating air refrigeration ambient temperature: -10~56°C, heating ambient temperature: -20~25°C



Multiple safety protection functions 2000 hours long-term operation test escort

High-definition system integrated integrated screen



Large-size LCD touch screen



Modbus remote communication



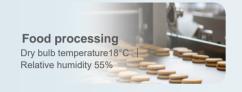
Multi-mode operation settings



Local/remote multiscreen application



Low dew point dehumidification dedicated air conditioning system







Scene appeal



Low temperature/low humidity

Dew point temperature as low as 4°C



Long-term energy consumption control

Stable and reliable, high efficiency and energy saving



Fresh air demand

Adaptive capacity adjustment

Stable cooling to above 4°C to ensure low temperature/low humidity production environment The periods frequency units peterted comprehensive trend.

The variable frequency unit's patented comprehensive trend judgment control technology for ambient temperature and humidity, and functional section temperature and humidity ensures no icing during low temperature operation

 Replaces high energy consumption rotary dehumidification applications, saving up to 50% energy

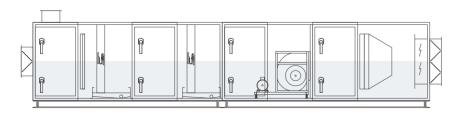
Refrigerant dehumidification directly, no need to rely on rotary regeneration air heating $\,$

O 10%~100% fresh air ratio, compatible with one set

In case of large enthalpy difference, two-stage direct expansion section relay dehumidification is used, with automatic control (dual cold source front and rear stage can also be used)

A typical sample of Briese Air low-dew-point dehumidification

Typical AHU functional segment layout





All fresh air constant temperature and humidity dedicated air handling unit









Scene appeal



All fresh air operation

Adaptive capacity adjustment



Temperature and humidity adjustment

Precise control of temperature and humidity



Energy-efficient

On-demand output to avoid excessive dehumidification

Effectively remove high humidity from the outside and strictly control temperature and humidity Fully variable frequency new wind constant temperature and

humidity air conditioning system, cooling and heating 10%~100% infinite adjustment

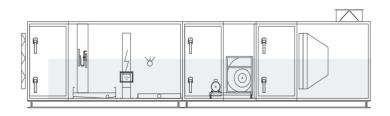
 Capacity output is accurate, eliminating the waste of cold and hot offset

Patented dew point temperature + humidity judgment constant temperature and humidity control algorithm, Refrigerant temperature and flow high-precision control measures Intelligent control system

Self-developed controller, patented constant temperature and humidity control, integrated multi-faceted control and multiple interlocking, multiple protection functions to ensure stable operation

A typical sample of Briese Air all fresh air constant temperature and humidity

Typical AHU functional segment layout







Energy-saving heat recovery dedicated air conditioning system







Scene appeal



High energy-saving requirements

Dehumidification and reheating "cold and hot offset" consumes a lot of energy



Control temperature and humidity simultaneously

Avoid excessive dehumidification



Stable and reliable

Guarantee normal process requirements

O Energy saving up to 45%

Innovative condensing heat recovery technology provides free reheating and saves operating energy by more than 45%

O ±1°C, ±5% constant temperature and humidity Precise control of dew point temperature and reheat

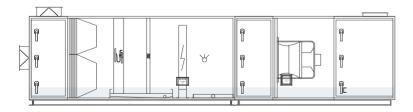
Precise control of dew point temperature and reheat temperature

O Strong efficiency in extreme weather

Equipped with jet enthalpy increase compressor, the efficiency in extreme weather is more than 10% higher than that of ordinary compressors

A typical sample of Briese Air heat recovery DX air conditioning unit

Typical AHU functional segment layout





Purification dedicated air conditioning system









Scene appeal



Personnel health needs

Remove viruses and bacteria to avoid cross contamination



Diversified air supply needs

Duct air supply, grille air supply, Jet high-altitude air supply, etc.



Flexible cold and heat source layout

Adapt to different pipeline lengths and height differences

Fresh air is introduced to remove bacteria and dust

Set up filters and sterilization functions to ensure ventilation and personnel health

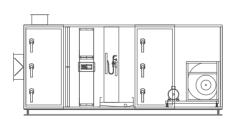
Adjustable static pressure outside the machine Adjustable static pressure outside the machine to achieve free air supply distance, suitable for commercial building decoration, factory post air supply and other applications

Typical model of Briese Air air-conditioning purification

O Built-in cold/heat source

Centralized cold source has cumbersome pipeline laying and distribution waste, suitable for decentralized installation or regional transformation

Typical AHU functional segment layout





Profession

ESIGN AND SELECT

Briese Air direct expansion air handling units can provide customized product services that fit the user's business format for various extreme industrial environments and comfortable living

environments.

The full range of selection is carried out through self-developed software, which efficiently and accurately matches the unit capacity and outputs professional reports.

Direct expansion

indoor unit	naming
	Indoor unit model: BAC-25mm BBC-50mm
	Height modulus: 51mm per module, 12 represents an internal
	height of 612mm
	Width modulus: 51mm per module, 13 represents an internal
	width of 663mm
	Design serial number: fixed frequency F, variable frequency
	D
	Structural form: H-horizontal, V-vertical, C-ceiling
	Feature code: F-fixed frequency, V-variable frequency,
	C-variable frequency condensing heat recovery
	Unit form: R-heat pump, C-single cooling
	Working condition type: R-return air, F-fresh air
	Use code: H-temperature and humidity type, X-single temperature
	control, S-deep dehumidification, U-open energy demand
	control method: S-single chip, T-third-party PLC, N-no
	automatic control
	Total number of matching outdoor units: 0100-10HP

Direct expansion indoor unit naming

Outdoor unit model: BSAX-air-cooled fixed-frequency outdoor unit
BSAV-air-cooled variable-frequency
outdoor unit
Outdoor unit capacity: 0100-10HP
Design serial number: fixed-frequency D, variable-frequency D, variable-frequency condensing heat recovery C
Unit type: R-cooling and heating type, cooling-only type
omitted
Sales area: C-domestic, E-export
Feature code: fixed-frequency unit omitted, X-standard variable-frequency direct expansion, R-variable-frequency condensing heat recovery



Energy saving for users



Energy saving and carbon reduction in heat pump operation



Multi-level energy adjustment and energy-saving operation



Multiple outdoor units take turns to defrost in winter

Professional extension



0°C stable ambient temperature for yearround refrigeration



Reliable operation under variable working conditions



Multiple systems for a good standby performance

Improve efficiency



Built-in refrigerant, no need to fill



Integrated control, no need for secondary development



Automatic compressor balancing, long load life



Parameters

Technical Specifications of
Fixed Frequency DX Air Handling Unit

Parameters of fixed frequency DX units (return air purification & return air constant temperature and humidity)

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	ODU model	BSAX	0030DRC	0030DRC*2	0080DRC	0100DRC	0125DRC	0150DRC	0200DRC	0250DRC					
Model	IDU model	BAC/BBC	012014	012016	014022	014024	020019	020025	022028	023034					
	Capacity	HP	3	6	8	10	12.5	15	20	25					
	Rated cooling capacity	kW	8.00	16.10	24.50	27.00	32.10	43.90	55.60	72.00					
Rated capacity ¹	Rated heating capacity	kW	8.00	16.00	25.00	26.50	34.10	44.00	60.00	68.00					
	Rated cooling power ¹	kW	2.40	4.80	6.87	7.40	10.00	13.00	16.40	21.00					
	Rated heating power ¹	kW	2.20	4.40	6.75	7.30	9.96	13.00	16.13	19.00					
ODU power	Maximum operating power	kW	3.94	7.88	9.60	12.20	13.40	16.80	22.70	28.00					
	Maximum operating current	А	17.90	35.80	18.10	23.00	23.20	31.50	43.30	52.50					
	ODU power supply	-	220V 1I	N~ 50Hz			380V 31	N~ 50Hz							
	Nominal IDU air flow	m³/h	1400	2400	5000	5500	6500	9000	11500	15000					
	Maximum fresh air ratio	%		I		Fresh air	ratio ≤30%	ı		ı					
IDU	Cooling coil section length for reference	mm	500	500	600	600	600	600	600	600					
	IDU power supply	-		380V 3N~ 50Hz											
	Condensate water pan pipe diameter	-		DN32											
Ambient	Ambient temperature for cooling	°C				Circulated a	air 0 to 46°C								
emperature range or unit operation	Ambient temperature for heating	°C	Circulated a	ir -10 to 25°C			Circulated ai	r -15 to 25°C							
	Temperature accuracy	°C			Constant	temperature and h	umidity: Cooling-on	ly: ±1°C; heat pump	o: ±2°C						
peration accuracy	Humidity accuracy	-			Constant	temperature and h	umidity: Cooling-on	ly: ±5%; heat pump	: ±10%						
	Туре	-			Rotor co	mpressor			Scroll co	Scroll compressor					
Compressor	Quantity	-	1	1*2	2	2	2	2	2	2					
	Number of fans	-	1	1*2	2	2	2	2	2	2					
	Air discharge mode	-	Axial flow s	ide air outlet			Axial flow up	per air outlet							
	Maximum air flow	m³/h	4000	4000*2	5500*2	5500*2	7520*2	7520*2	12900*2	12900*2					
	Width	mm	865	865	1403	1403	1403	1403	1808	1808					
Single ODU	Depth	mm	350	350	821	821	821	821	1090	1090					
Dimensions and weight	Height	mm	700	700	1200	1200	1200	1200	1214	1214					
	Net Weight	kg	56	56	200	200	240	240	400	400					
	Туре	-		ı	1	R4	10A	ı							
Refrigerant	ODU charge amount ²	kg	2.1	2.1*2	3.2*2	3.4*2	3.6*2	4.35*2	5.8*2	7.2*2					
	Liquid pipe * number	mm	6.35	6.35*2	9.52*2	9.52*2	9.52*2	12.7*2	12.7*2	12.7*2					
	Steam pipe * number	mm	15.88	15.88*2	15.88*2	15.88*2	15.88*2	19.05*2	22.23*2	25.4*2					
Connecting pipe	Limit length/height diffe	erence (m) of	15/10	15/10	35/20	35/20	35/20	35/20	40/20	40/20					
	ODU connection mode ³	-			Pipe	socket			Wel	ding					
	mode								I.						

Note: 1. Rated capacity and rated power are measured under the following conditions:

 $Rated \ cooling \ capacity \ is \ nominal \ air \ volume, \ outdoor \ dry-bulb \ temperature \ is \ 35/24°C, \ indoor \ dry-bulb \ temperature \ is \ 27/19°C;$

Rated heating capacity is nominal air volume, outdoor dry-bulb temperature is 7/6°C, indoor dry-bulb temperature is 20/15°C;

Performance test piping condition is equivalent to 7.5m (horizontal) pipe length,

- 2. The unit has been filled with refrigerant according to the nameplate refrigerant amount before leaving the factory. If the equivalent pipe length exceeds 7.5m, refrigerant must be added according to the "Installation and Operation Manual",
- 3. The connecting pipe diameter of the internal and external units is based on the external unit diameter, and the internal unit is reduced in diameter,
- 4. For more air volume selection, please consult Briese Air local branch or office.

Parameters of fixed frequency DX units (return air purification & return air constant temperature and humidity)

	ODU model	BSAX	0150DRC*2	0200DRC*2	0250DRC*2	0200DRC*3	0250DRC*3	1100DRC	1200DRC
Model	IDU model	BAC/BBC	026035	030039	035044	035051	042054	047058	047063
	Capacity	HP	30	40	50	60	75	110	120
	Rated cooling capacity	kW	87.80	111.20	144.00	166.80	216.00	270.00	310.00
Rated capacity ¹	Rated heating capacity	kW	88.00	120.00	136.00	180.00	204.00	270.00	310.00
	Rated cooling power ¹	kW	26.00	32.80	42.00	49.20	63.00	84.00	92.40
	Rated heating power ¹	kW	26.00	32.30	38.00	48.40	57.00	89.30	88.30
ODU power	Maximum operating power	kW	33.60	45.40	56.00	68.10	84.00	117.60	129.36
	Maximum operating current	А	63.00	86.60	105.00	129.90	157.50	221.89	244.08
	ODU power supply	-				380V 3N~ 50Hz			
	Nominal IDU air flow	m³/h	18000	23000	30000	34500	45000	55000	63000
	Maximum fresh air ratio	%				Fresh air ratio ≤30%			
IDU	Cooling coil section length for reference	mm	600	600	600	800	800	900	900
	IDU power supply	-				380V 3N~ 50Hz			
	Condensate water pan pipe diameter	-				DN32			
Ambient	Ambient temperature for cooling	°C		(Circulated air 0 to 46°C			Circulated ai	r -10 to 46°C
emperature range for unit operation	Ambient temperature for heating	°C		С	irculated air -15 to 25°	C		Circulated ai	r -10 to 30°C
	Temperature accuracy	°C			Constant tempera	ture and humidity: Co	oling-only: ±1°C; heat	pump: ±2°C	
Operation accuracy	Humidity accuracy	-			Constant tempera	ture and humidity: Co	oling-only: ±5%; heat	pump: ±10%	
_	Туре	-	Rotor compressor			Scroll cor	mpressor		
Compressor	Quantity	-	2*2	2*2	2*2	2*3	2*3	4	4
	Number of fans	-	2*2	2*2	2*2	2*3	2*3	4	4
ODU Fan motor	Air discharge mode	-			A	xial flow upper air outl	et		
	Maximum air flow	m³/h	7520*4	12900*4	12900*4	12900*6	12900*6	28000*4	28000*4
	Width	mm	1403	1808	1808	1808	1808	2200	2200
Single ODU	Depth	mm	821	1090	1090	1090	1090	2400	2400
Single ODU Dimensions and weight	Depth Height	mm	821 1200	1090 1214	1090 1214	1090 1214	1090 1214	2400 2235	2400
Dimensions and									
Dimensions and weight	Height	mm	1200	1214	1214	1214	1214	2235	2235
Dimensions and	Height Net Weight	mm kg	1200	1214	1214	1214 400	1214	2235	2235
Dimensions and weight	Height Net Weight Type	mm kg -	1200 240	1214 400	1214	1214 400 R410A	1214	2235 1570	2235 1570
Dimensions and weight Refrigerant	Height Net Weight Type ODU charge amount ²	mm kg - kg	1200 240 4.35*4	1214 400 5.8*4	1214 400 7.2*4	1214 400 R410A 5.8*6	1214 400 7.2*6	2235 1570 13.5*4	2235 1570 13.5*4
Dimensions and weight	Height Net Weight Type ODU charge amount ² Liquid pipe * number	kg - kg mm mm erence (m) of	1200 240 4.35*4 12.7*4	1214 400 5.8*4 12.7*4	1214 400 7.2*4 12.7*4	1214 400 R410A 5.8*6 12.7*6	1214 400 7.2*6 12.7*6	2235 1570 13.5*4 19.05*4	2235 1570 13.5*4 19.05*4

Note: 1. Rated capacity and rated power are measured under the following conditions:

Rated cooling capacity is nominal air volume, outdoor dry-bulb temperature is 35/24°C, indoor dry-bulb temperature is 27/19°C;

 $Rated \ heating \ capacity \ is \ nominal \ air \ volume, \ outdoor \ dry-bulb \ temperature \ is \ 7/6°C, \ indoor \ dry-bulb \ temperature \ is \ 20/15°C;$

Performance test piping condition is equivalent to 7.5m (horizontal) pipe length,

- 2. The unit has been filled with refrigerant according to the nameplate refrigerant amount before leaving the factory. If the equivalent pipe length exceeds 7.5m, refrigerant must be added according to the "Installation and Operation Manual",
- 3. The connecting pipe diameter of the internal and external units is based on the external unit diameter, and the internal unit is reduced in diameter,
- 4. For more air volume selection, please consult Brise Air local branch or office.



Parameters of fixed frequency DX units (fresh air purification)

	ODU model	BSAX	0080DRC	0100DRC	0125DRC	0150DRC	0200DRC	0250DRC					
Model	IDU model	BAC/BBC	012013	012013	012016	014017	014021	016024					
	Capacity	HP	8	10	12.5	15	20	25					
D-4-41	Rated cooling capacity	kW	24.50	27.00	32.00	41.00	55.00	72.00					
Rated capacity ¹	Rated heating capacity	kW	23.00	26.50	34.10	41.50	55.00	68.00					
	Rated cooling power ¹	kW	6.87	7.40	10.00	13.00	16.40	21.00					
	Rated heating power ¹	kW	6.75	7.30	9.96	13.00	16.13	19.00					
ODU power	Maximum operating power	kW	9.60	12.20	13.40	16.80	22.70	28.00					
	Maximum operating current	А	18.10	23.00	23.20	31.50	43.30	52.50					
	ODU power supply	-	012013										
	Nominal IDU air flow	m³/h	1950	2200	2450	3150	4200	5550					
IDII	Cooling coil section length for reference	mm	600	600	700	700	800	800					
IDU	IDU power supply	-			380V 31								
	Condensate water pan pipe diameter	-	380V 3N~ 50Hz DN32 16°C to 43°C										
Ambient temperature	Ambient temperature for cooling	°C			16°C t	o 43°C							
range for unit operation	Ambient temperature for heating	°C			-15 to	15°C ⁵							
O	Temperature accuracy	°C			Heat pu	mp ±2°C							
Operation accuracy	Humidity accuracy	-			Heat pur	mp ±10%							
0	Туре	-		Rotor co	mpressor		Scroll co	mpressor					
Compressor	Quantity	-	2	2	2	2	2	2					
	Number of fans	-	2	2	2	2	2	2					
ODU Fan motor	Air discharge mode	-			Axial flow up	per air outlet							
	Maximum air flow	m³/h	5500*2	5500*2	7520*2	7520*2	12900*2	12900*2					
	Width	mm	1403	1403	1403	1403	1808	1808					
Single ODU Dimensions and	Depth	mm	821	821	821	821	1090	1090					
weight	Height	mm	1200	1200	1200	1200	1214	1214					
	Net Weight	kg	200	200	240	240	400	400					
Refrigerant	Type	-			R4	10A							
Kenigerani	ODU charge amount ²	kg	3.2*2	3.4*2	3.6*2	4.35*2	5.8*2	7.2*2					
	Liquid pipe * number	mm	9.52*2	9.52*2	9.52*2	12.7*2	12.7*2	12.7*2					
Connecting pipe	Steam pipe * number	mm	15.88*2	15.88*2	15.88*2	19.05*2	22.23*2	25.4*2					
Connecting pipe	Limit length/height dir connecting	fference (m) of pipe	35/20	35/20	35/20	35/20	40/20	40/20					
	ODU connection mode ³	-		Pipe s	socket		Wel	ding					

Note: 1. Rated capacity and rated power are measured under the following conditions:

Rated cooling capacity is nominal air volume, outdoor dry-bulb temperature is 35/28°C;

Rated heating capacity is nominal air volume, outdoor dry-bulb temperature is 7/6°C;

Performance test piping conditions are equivalent pipe length of 7.5m (horizontal),

2. The unit has been filled with refrigerant according to the nameplate refrigerant amount before leaving the factory. If the equivalent pipe length exceeds 7.5m, refrigerant must be added according to the "Installation and Operation Manual".

- 3. The connecting pipe diameter of the internal and external units is based on the external unit diameter, and the internal unit is reduced in diameter.
- 4. For more air volume selection, please consult Briese Air's local branch or office.
- 5. When the unit inlet air temperature is lower than 0°C, if the heat pump needs to be turned on, a preheating section needs to be configured to preheat to above 0°C.

Parameters of fixed frequency DX units (fresh air purification)

	ODU model	BSAX	0150DRC*2	0200DRC*2	0250DRC*2	0200DRC*3	0250DRC*3	0600DRC	1100DRC	1200DRC			
Model	IDU model	BAC/BBC	020019	020025	022030	023031	026037	023031	032040	035044			
	Capacity	HP	30	40	50	60	75	60	110	120			
	Rated cooling capacity	kW	82.00	110.00	144.00	165.00	216.00	165.00	290.00	332.00			
Rated capacity ¹	Rated heating capacity	kW	83.00	110.00	136.00	165.00	204.00	150.00	280.00	320.00			
	Rated cooling power ¹	kW	26.00	32.80	42.00	49.20	63.00	53.20	89.30	98.30			
	Rated heating power ¹	kW	26.00	32.30	38.00	48.40	57.00	49.60	80.30	88.30			
ODU power	Maximum operating power	kW	33.60	45.40	56.00	68.10	84.00	74.48	112.42	123.62			
	Maximum operating current	А	63.00	86.60	105.00	129.90	157.50	140.53	212.11	233.25			
	ODU power supply	-											
	Nominal IDU air flow	m³/h	6300	8400	11100	12600	16650	12600	22000	25500			
in.	Cooling coil section length for reference	mm	800	800	800	800	800	800	800	800			
IDU	IDU power supply	-				380V 31	√~ 50Hz			1			
	Condensate water pan pipe diameter	-				DN	132						
Ambient temperature	Ambient temperature for cooling	°C	16 to 43°C 16 to 46°C										
range for unit operation	Ambient temperature for heating	°C	-15 to 15°C ⁵ -10 to 21°C ⁵										
0 "	Temperature accuracy	°C				Heat pur	mp ±2°C						
Operation accuracy	Humidity accuracy	-				Heat pur	np ±10%						
0	Туре	-	Rotor compressor				Scroll compressor						
Compressor	Quantity	-	2*2	2*2	2*2	2*3	2*3	2	4	4			
	Number of fans	-	2*2	2*2	2*2	2*3	2*3	2	4	4			
ODU Fan motor	Air discharge mode	-				Axial flow up	per air outlet						
	Maximum air flow	m³/h	7520*4	12900*4	12900*4	12900*6	12900*6	28000*2	28000*4	28000*4			
	Width	mm	1403	1808	1808	1808	1808	2200	2200	2200			
Single ODU	Depth	mm	821	1090	1090	1090	1090	1100	2400	2400			
Dimensions and weight	Height	mm	1200	1214	1214	1214	1214	2248	2235	2235			
	Net Weight	kg	240	400	400	400	400	760	1570	1570			
Refrigerant	Туре	-	R410A										
nemgerani	ODU charge amount ²	kg	4.35*4	5.8*4	7.2*6	5.8*6	7.2*6	14*2	13.5*4	13.5*4			
	Liquid pipe * number	mm	12.7*4	12.7*4	12.7*4	12.7*6	12.7*6	19.05*2	19.05*4	19.05*4			
Connecting pipe	Steam pipe * number	mm	19.05*4	22.23*4	25.4*4	22.23*6	25.4*6	34.92*2	34.92*4	34.92*4			
Connecting pipe	Limit length/height di connecting	fference (m) of pipe	35/20	40/20	40/20	40/20	40/20	40/20	40/20	40/20			
	ODU connection mode ³	-	Pipe socket Welding										

Note: 1. Rated capacity and rated power are measured under the following conditions:

Rated cooling capacity is nominal air volume, outdoor dry-bulb temperature is 35/28 $^{\circ}\text{C};$

Rated heating capacity is nominal air volume, outdoor dry-bulb temperature is 7/6°C;

Performance test piping conditions are equivalent pipe length of 7.5m (horizontal),

- 2. The unit has been filled with refrigerant according to the nameplate refrigerant amount before leaving the factory. If the equivalent pipe length exceeds 7.5m, refrigerant must be added according to the "Installation and Operation Manual".
- 3. The connecting pipe diameter of the internal and external units is based on the external unit diameter, and the internal unit is reduced in diameter.
- 4. For more air volume selection, please consult Briese Air's local branch or office.
- 5. When the unit inlet air temperature is lower than 0°C, if the heat pump needs to be turned on, a preheating section needs to be configured to preheat to above 0°C.



Performance Deviation -

Performance deviation of fixed frequency DX ODUs

The cooling and heating capacity of the direct expansion machine is closely related to the actual use of the system. When selecting the outdoor unit, be sure to refer to the following performance deviation table to check the performance.

For example: the actual working environment of the outdoor unit is 30°C, the air supply temperature of the indoor unit is 18°C, and the total length of the equivalent connecting pipe is 45m without height difference. Then the actual refrigeration performance correction coefficient of the outdoor unit = K1×K2×K3=1.08×1.12×0.92=1.11

1. Indoor and outdoor working conditions deviate from the refrigeration correction factor K1 | Air-cooled box-type constant temperature and humidity unit / Air-cooled purification air-conditioning unit

	-										
Correction Indoor wet bulb factor Temperature °C Outdoor dry bulb temperature (°C)	12	13	14	15	16	17	18	19	20	21	22
25	0.825	0.833	0.955	1.041	1.095	1.121	1.137	1.153	1.165	1.179	1.181
30	0.770	0.785	0.933	1.000	1.039	1.071	1.095	1.119	1.165	1.163	1.171
35	0.693	0.723	0.85	0.925	0.961	1.000	1.039	1.076	1.086	1.092	1.102
40	0.601	0.635	0.759	0.831	0.875	0.911	0.954	1.000	1.056	1.076	1.095
43	0.599	0.583	0.698	0.782	0.823	0.887	0.916	0.971	0.988	1.028	1.034

2. Heating capacity deviation correction factor K1' in indoor and outdoor working conditions | Air-cooled cabinet type thermostatic and humidistatic AHUs/Air-cooled purifying type air conditioning unit

Correction Outdoor wet bulb factor Temperature °C Indoor dry bulb temperature (°C)	14	12	10	8	6	4	2	0	-2	-4	-6	-8	-11	-13	-15
10	1.241	1.192	1.157	1.119	1.081	1.052	0.984	0.921	0.862	0.807	0.757	0.712	0.671	0.634	0.602
15	1.196	1.159	1.131	1.085	1.043	0.998	0.930	0.867	0.808	0.753	0.703	0.658	0.617	0.580	0.548
20	1.172	1.136	1.095	1.053	1.000	0.964	0.897	0.834	0.775	0.720	0.669	0.622	0.579	0.540	0.505
25	1.139	1.099	1.052	1.016	0.967	0.898	0.833	0.772	0.716	0.663	0.615	0.570	0.530	0.494	0.462

Note: 1. For the Fixed frequency unit, the main factors affecting the cooling operation are the indoor wet bulb temperature and outdoor dry bulb temperature while the main factors affecting the heating operation are the outdoor wet bulb temperature and indoor dry bulb temperature. Therefore, the indoor dry bulb temperature and other factors that have little impact are ignored in the above table.

3. IDU air flow deviation correction coefficient K2

IDU rated air flow (%)	80	90	100	110	120
Correction factor	0.91	0.96	1	1.02	1.04

4. Connecting pipe length correction factor K3

Correction for	ootor V2		Equivalent total length of connecting pipe												
Correction	acioi No	5	10	15	20	25	30	35	40	45	50				
	0m	1.00	0.99	0.97	0.95	0.93	0.91	0.89	0.87	0.85	0.83				
	5m	1.00	0.98	0.96	0.94	0.92	0.90	0.88	0.86	0.84	0.82				
Height difference	10m	-	0.97	0.95	0.93	0.91	0.89	0.87	0.85	0.83	0.81				
between the ODU	15m	-	-	0.94	0.92	0.90	0.88	0.86	0.84	0.82	0.80				
and IDO	20m	-	-	-	0.91	0.89	0.87	0.85	0.83	0.81	0.79				
	25m	-	-	-	-	0.88	0.86	0.84	0.82	0.80	0.78				

Notes: 1. The equivalent total length of the equivalent connecting pipe refers to the total length of the straight pipe of the pipeline (including horizontal and vertical connecting pipes), plus the sum of the equivalent lengths of elbows and oil storage bends;

2. Note that the maximum equivalent connecting pipe length and maximum height difference of different models are different, see "Product Parameters" for details.

PRODUCT SERIES

Variable frequency DX series

Higher energy-saving experience



Full frequency conversion, first-level energy efficiency



Intelligent energy adjustment, ondemand output



Optional heat recovery, energy saving rate up to 70%

More professional scenarios



Full-condition operation



Low dew point air outlet, customized <5°C



Fresh air, constant temperature and humidity

Simpler operation and maintenance



Free installation of internal and external units



Multi-mode onebutton switching



"Cloud" remote control



Parameters -

Technical Specifications of

Variable Frequency DX Air Handling Unit

Parameters of variable frequency DX units (return air purification & return air constant temperature and humidity)

	ODU model	BSAV-DRCX	0060	0800	0100	0060*2	0120	0080*2	0160	0100*2	0200	0120*2	0240	0260	0280
Model	IDU model	BAC/BBC	012017	016020	016022	020021	020021	020026	020026	022030	022030	023033	023033	026031	026033
modor	Capacity	HP	6	8	10	12	12	16	16	20	20	24	24	26	28
	Rated cooling	kW	15.00	24.50	28.00	30.00	33.50	49.00	45.00	56.00	56.00	67.00	67.50	73.50	75.50
Rated capacity ¹	capacity Rated heating	kW	16.00	23.00	31.00	32.00	37.50	46.00	50.00	62.00	58.00	75.00	75.50	81.50	85.50
	capacity Rated cooling power ¹	kW	5.10	6.63	7.47	10.20	8.70	13.26	12.30	14.94	15.70	17.40	18.20	19.40	20.35
	Rated heating power ¹	kW	4.90	6.88	7.30	9.80	8.40	13.76	12.00	14.60	14.40	16.80	18.10	19.20	20.18
ODU power	Maximum operating	kW	7.00	10.80	13.50	14.00	16.50	21.60	22.00	27.00	26.00	33.00	30.00	31.80	32.00
ово рене	power Maximum operating	A	32.00	18.00	22.50	64.00	26.50	36.00	36.50	45.00	43.00	53.00	50.00	52.50	56.55
	Current ODU power supply	-	220V~ 50Hz	380V 31		220V~ 50Hz	20.00	00.00	00.00		80V 3N~ 50H		00.00	02.00	00.00
	Nominal IDU air flow	m³/h	3000	5200	6000	7200	7200	9600	9600	12000	12000	14400	14400	15600	16800
	Maximum fresh air	%	3000	3200	0000	7200	7200		sh air ratio ≤5		12000	14400	14400	10000	10000
IDU	ratio Cooling coil section	mm	500	600	600	600	600	600	600	600	600	600	600	600	600
	length for reference	_	000	000		000	000		80V 3N~ 50H		000	000	000		
Ambient	Ambient temperature	°C							ated air -10 to						
temperature range for unit	for cooling Ambient temperature	°C		Circulated air -20 to 25°C											
operation	for heating Temperature	°C		Circulated air -20 to 25 C Constant temperature and humidity: Cooling-only: ±1°C; heat pump: ±2°C											
Operation accuracy	accuracy Humidity accuracy	-									: ±5%; heat p	•			
		-				Potor on	,	. tomporataro	and number	. 00011119 01119	Scroll compressor	ap. 21070	Potor oo	mprocoor	
Compressor	Туре					Rotor co	_		l .				Rotor cor		
	Quantity	-	1	1	1	1*2	1	1*2	1	1*2	1	1*2	2	2	2
	Number of fans	-	1	2	2	1*2	2	2*2	1 Axial flow	2*2 Axial flow	2	2*2	2	2	2
ODU Fan motor	Air discharge mode	-			Axial flow si	ide air outlet			upper air outlet	side air outlet		Axial	flow upper air	outlet	
	Maximum air flow	m³/h	5000	8000	8000	5000*2	11300	8000*2	13980	8000*2	25800	11300*2	25800	25800	27000
	Width	mm	985	985	985	985	1100	985	1240	985	1500	1100	1500	1500	1900
Single ODU Dimensions	Depth	mm	466	466	466	466	450	466	860	466	860	450	860	860	860
and weight	Height	mm	840	1264	1264	840	1550	1264	1690	1264	1690	1550	1690	1690	1690
	Net Weight	kg	84	125	125	84	212	125	277	125	320	212	325	330	420
Pofrigorant	Net Weight Type	kg -	84	125	125	84	212	125	277 R410A	125	320	212	325	330	420
Refrigerant			3.5	125	125 7.5	3.5*2	212	125 5.5*2		125 7.5*2	320 16.5	212 8*2	325	330 16.5	17
Refrigerant	Туре	-							R410A						
Connecting	Type ODU charge amount ²	- kg	3.5	5.5	7.5	3.5*2	8	5.5*2	R410A 13.5	7.5*2	16.5	8*2	16.5	16.5	17
	Type ODU charge amount ² Liquid pipe * number	kg mm mm	3.5 9.52	5.5 9.52	7.5 12.7	3.5*2 9.52*2	8 12.7	5.5*2 9.52*2	R410A 13.5 12.7	7.5*2 12.7*2	16.5 15.88	8*2 12.7*2	16.5 19.05	16.5 19.05	17
Connecting	Type ODU charge amount ² Liquid pipe * number Steam pipe * number Limit length/height diff	kg mm mm	3.5 9.52 15.88	5.5 9.52 19.05	7.5 12.7 22.23	3.5*2 9.52*2 15.88*2	8 12.7 25.4	5.5*2 9.52*2 19.05*2	R410A 13.5 12.7 28.58	7.5*2 12.7*2 22.23*2	16.5 15.88 28.58	8*2 12.7*2 25.4*2	16.5 19.05 31.75	16.5 19.05 31.75	17 19.05 31.75

Note: 1. Rated capacity and rated power are measured under the following conditions:

Rated cooling capacity is nominal air volume, outdoor dry-bulb temperature is 35/24°C, indoor dry-bulb temperature is 27/19°C;

 $Rated\ heating\ capacity\ is\ nominal\ air\ volume,\ outdoor\ dry-bulb\ temperature\ is\ 20/15^{\circ}C;\ indoor\ dry-bulb\ temperature\ is\ 20/15^{\circ}C;$

Performance test piping condition is equivalent to 7.5m (horizontal) pipe length;

- 2. The unit has been filled with refrigerant according to the nameplate refrigerant amount before leaving the factory. If the equivalent pipe length exceeds 7.5m, refrigerant must be added according to the "Installation and Operation Manual";
- 3. The connecting pipe diameter of the internal and external units is based on the external unit diameter. The internal unit can be reduced in diameter. When the pipe exceeds 50m, the pipe diameter shall be based on the operating instructions;
- 4. For more air volume selection, please consult the local branch or office of Brise Air;
- 5. If there is a need to change the maximum length of the pipe for 6HP-10HP, please communicate with the factory.

Parameters of variable frequency DX units (return air purification & return air constant temperature and humidity)

	ODU model	BSAV-DRCX	0300	0160*2	0320	0200*2	0240*2	0260*2	0280*2	0300*2	0320*2	0240*3	0260*3	0280*3				
Model	IDU model	BAC/BBC	026035	026037	026037	030041	035042	037043	037046	038050	038050	042050	045051	047055				
	Capacity	HP	30	32	32	40	48	52	56	60	64	72	78	84				
	Rated cooling capacity	kW	85.00	90.00	90.00	112.00	135.00	147.00	151.00	170.00	180.00	202.5	220.50	226.50				
Rated capacity ¹	Rated heating capacity	kW	95.00	100.00	100.00	116.00	151.00	163.00	171.00	190.00	200.00	226.5	244.50	256.50				
	Rated cooling power ¹	kW	22.95	24.60	24.78	31.40	36.40	38.80	41.00	45.90	49.56	54.60	58.20	61.05				
	Rated heating power ¹	kW	22.85	24.00	24.30	28.80	36.20	38.40	40.00	45.70	48.60	54.30	57.60	60.54				
ODU power	Maximum operating power	kW	34.45	44.00	36.50	52.00	60.00	63.60	64.00	68.90	73.00	90.00	95.40	96.00				
	Maximum operating current	А	61.45	73.00	63.50	86.00	100.00	105.00	113.10	122.90	127.00	150.00	157.50	169.65				
	ODU power supply	-		4.45 44.00 36.50 52.00 60.00 63.60 64.00 68.90 73.00 90.00 95.40 96.00 1.45 73.00 63.50 86.00 100.00 105.00 113.10 122.90 127.00 150.00 157.50 169.65 380V 3N~50Hz 3000 19200 19200 24000 28800 31200 33600 36000 38400 43200 46800 50400 Fresh air ratio ≤50%														
	Nominal IDU air flow	m³/h	18000	19200	19200	24000	28800	31200	33600	36000	38400	43200	46800	50400				
IDU	Maximum fresh air ratio	%		22.85														
150	Cooling coil section length for reference	mm	600	600	600	600	800	800	800	800	800	800	800	800				
	IDU power supply	-						380V 31	N~ 50Hz									
Ambient temperature	Ambient temperature for cooling	°C		Circulated air -10 to 56°C														
range for unit operation	Ambient temperature for heating	°C		Circulated air -20 to 25°C														
Operation	Temperature accuracy	°C					Constant tem	perature and h	umidity: Cooling	g-only: ±1°C; h	eat pump: ±2°0							
accuracy	Humidity accuracy	-					Constant tem	perature and h	umidity: Cooling	g-only: ±5%; he	eat pump: ±109	6						
Compressor	Туре	-	R	otor compress	ог	Scroll compressor				Rotor co	mpressor							
	Quantity	-	2	1*2	2	1*2	2*2	2*2	2*2	2*2	2*2	2*3	2*3	2*3				
	Number of fans	-	2	1*2	2	2*2	2*2	2*2	2*2	2*2	2*2	2*3	2*3	2*3				
ODU Fan motor	Air discharge mode	-						Axial flow up	per air outlet									
	Maximum air flow	m³/h	27000	13980*2	27000	25800*2	25800*2	25800*2	25800*2	27000*2	27000*2	25800*3	25800*3	27000*3				
	Width	mm	1900	1240	1900	1500	1500	1500	1900	1900	1900	1500	1500	1900				
Single ODU Dimensions	Depth	mm	860	860	860	860	860	860	860	860	860	860	860	860				
and weight	Height	mm	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690				
	Net Weight	kg	430	277	430	320	325	330	420	430	430	325	330	420				
Refrigerant	Туре	-						R4	10A									
	ODU charge amount ²	kg	20	13.5*2	20	16.5*2	16.5*2	16.5*2	17*2	20*2	20*2	16.5*3	16.5*3	17*3				
	Liquid pipe * number	mm	19.05	12.7*2	19.05	15.88*2	19.05*2	19.05*2	19.05*2	19.05*2	19.05*2	19.05*3	19.05*3	19.05*3				
Connecting	Steam pipe * number	mm	31.75	28.58*2	31.75	28.58*2	31.75*2	31.75*2	31.75*2	31.75*2	31.75*2	31.75*3	31.75*3	31.75*3				
pipe	Limit length/height diff connecting		of 100/50															
	connecting	pipo							Welding									
	ODU connection mode ³	-						Wel	ding									
Condensate water								Wel										

Note: 1. Rated capacity and rated power are measured under the following conditions:

Rated cooling capacity is nominal air volume, outdoor dry-bulb temperature is 35/24°C, indoor dry-bulb temperature is 27/19°C;

 $Rated\ heating\ capacity\ is\ nominal\ air\ volume,\ outdoor\ dry-bulb\ temperature\ is\ 7/6°C,\ indoor\ dry-bulb\ temperature\ is\ 20/15°C;$

Performance test piping condition is equivalent to 7.5m (horizontal) pipe length;

- 2. The unit has been filled with refrigerant according to the nameplate refrigerant amount before leaving the factory. If the equivalent pipe length exceeds 7.5m, refrigerant must be added according to the "Installation and Operation Manual";
- 3. The connecting pipe diameter of the internal and external units is based on the external unit diameter. The internal unit can be reduced in diameter. When the pipe exceeds 50m, the pipe diameter shall be based on the operating instructions;
- 4. For more air volume selection, please consult the local branch or office of Briese Air;
- 5. If there is a need to change the maximum length of the pipe for 6HP-10HP, please communicate with the factory.



Parameters of variable frequency DX units (return air purification & return air constant temperature and humidity)

	ODU model	BSAV- DRCX	0300*3	0320*3	0260*4	0280*4	0300*4	0320*4	0240*6	0260*6	0280*6	0300*6	0320*6			
Model	IDU model	BAC/BBC	050056	050056	052057	052062	057060	057064	057072	062070	067072	067086	067086			
	Capacity	HP	90	96	104	112	120	128	144	156	168	180	192			
Rated	Rated cooling capacity	kW	255.00	270.00	294.00	302.00	340.00	360.00	405.00	441.00	453.00	510.00	540.00			
capacity ¹	Rated heating capacity	kW	285.00	300.00	326.00	342.00	380.00	400.00	453.00	489.00	513.00	570.00	600.00			
	Rated cooling power ¹	kW	68.85	74.00	78.00	81.00	92.00	99.12	109.20	116.40	122.10	137.70	148.68			
	Rated heating power ¹	kW	68.55	72.90	77.00	80.72	91.40	97.20	108.60	115.20	121.08	137.10	145.80			
ODU power	Maximum operating power	kW	103.35	109.50	127.20	128.00	137.80	146.00	180.00	190.80	192.00	206.70	219.00			
	Maximum operating current	А	184.35	190.50	210.00	226.20	245.80	254.00	300.00	315.00	339.30	368.70	381.00			
	ODU power supply	-						380V 3N~ 50H	Z							
	Nominal IDU air flow	m³/h	54000	57600	62400	67200	72000	76800	86400	93600	100800	108000	115200			
	Maximum fresh air ratio	%					Fre	esh air ratio ≤5	0%							
IDU	Cooling coil section length for reference	mm	800	800	900	900	900	900	900	900	900	900	900			
	IDU power supply - 380V 3N~ 50Hz															
Ambient temperature	Ambient temperature for cooling	°C		Circulated air -10 to 56°C												
range for unit operation	Ambient temperature for heating	°C		Circulated air -20 to 25°C												
Operation	Temperature accuracy	°C		Constant temperature and humidity: Cooling-only: ±1°C; heat pump: ±2°C												
accuracy	Humidity accuracy	-				Con	stant temperati	ire and humidi	ty: Cooling-only	: ±5%; heat pu	ımp: ±10%					
Compressor	Туре	-					R	otor compress	or							
Compressor	Quantity	-	2*3	2*3	2*4	2*4	2*4	2*4	2*6	2*6	2*6	2*6	2*6			
	Number of fans	-	2*3	2*3	2*4	2*4	2*4	2*4	2*6	2*6	2*6	2*6	2*6			
ODU Fan motor	Air discharge mode	-					Axial	flow upper air	outlet							
	Maximum air flow	m³/h	27000*3	27000*3	25800*4	27000*4	27000*4	27000*4	25800*6	25800*6	27000*6	27000*6	27000*6			
	Width	mm	1900	1900	1500	1900	1900	1900	1500	1500	1900	1900	1900			
Single ODU Dimensions	Depth	mm	860	860	860	860	860	860	860	860	860	860	860			
and weight	Height	mm	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690			
	Net Weight	kg	430	430	330	420	430	430	325	330	420	430	430			
Defricement	Туре	-						R410A								
Refrigerant	ODU charge amount ²	kg	20*3	20*3	16.5*4	17*4	20*4	20*4	16.5*6	16.5*6	17*6	20*6	20*6			
	Liquid pipe * number	mm	19.05*3	19.05*3	19.05*4	19.05*4	19.05*4	19.05*4	19.05*6	19.05*6	19.05*6	19.05*6	19.05*6			
Connecting	Steam pipe * number	mm	31.75*3	31.75*3	31.75*4	31.75*4	31.75*4	31.75*4	31.75*6	31.75*6	31.75*6	31.75*6	31.75*6			
pipe	Limit length/height di of connecting							100/50								
	ODU connection mode ³	-						Welding								
Condensate water	Water pan pipe diameter	-						DN32								

Note: 1. Rated capacity and rated power are measured under the following conditions:

Rated cooling capacity is nominal air volume, outdoor dry-bulb temperature is 35/24°C, indoor dry-bulb temperature is 27/19°C;

Rated heating capacity is nominal air volume, outdoor dry-bulb temperature is 7/6°C, indoor dry-bulb temperature is 20/15°C;

Performance test piping condition is equivalent to 7.5m (horizontal) pipe length;

- 2. The unit has been filled with refrigerant according to the nameplate refrigerant amount before leaving the factory. If the equivalent pipe length exceeds 7.5m, refrigerant must be added according to the "Installation and Operation Manual";
- 3. The connecting pipe diameter of the internal and external units is based on the external unit diameter. The internal unit can be reduced in diameter. When the pipe exceeds 50m, the pipe diameter shall be based on the operating instructions;
- 4. For more air volume selection, please consult the local branch or office of Brise Air;
- 5. If there is a need to change the maximum length of the pipe for 6HP-10HP, please communicate with the factory.

Parameters of variable frequency DX units (fresh air purification & fresh air constant temperature and humidity)

	ODU model	BSAV- DRCX	0060	0080	0100	0060*2	0120	0080*2	0160	0100*2	0200	0120*2	0240	0260	0280
Model	IDU model	BAC/BBC	012013	010013	010015	012014	012014	012018	012018	014017	014017	014020	014020	016019	016020
	Capacity	HP	6	8	10	12	12	16	16	20	20	24	24	26	28
Rated	Rated cooling capacity	kW	15.00	24.50	28.00	30.00	32.00	49.00	45.00	56.00	56.00	64.00	67.50	73.50	78.50
capacity ¹	Rated heating capacity	kW	16.00	21.50	26.00	32.00	30.00	43.00	43.00	52.00	52.00	60.00	61.50	66.50	75.00
	Rated cooling power ¹	kW	5.10	6.63	7.47	10.20	8.70	13.26	12.30	14.94	15.70	17.40	18.20	19.40	20.35
	Rated heating power ¹	kW	4.90	6.88	7.30	9.80	8.40	13.76	12.00	14.60	14.40	16.80	18.10	19.20	20.18
ODU power	Maximum operating power	kW	7.00	10.80	13.50	14.00	16.50	21.60	22.00	27.00	26.00	33.00	30.00	31.80	32.00
	Maximum operating current	А	32.00	18.00	22.50	64.00	26.50	36.00	36.50	45.00	43.00	53.00	50.00	52.50	56.55
	ODU power supply	-	220V~ 50Hz	380V 31	N~ 50Hz	220V~ 50Hz				38	30V 3N~ 50H	-lz		,	
	Nominal IDU air flow	m³/h	1300	1600	1800	2150	2150	2900	2900	3600	3600	4350	4350	4750	5050
IDU	Cooling coil section length for reference	mm	600	600	600	600	600	600	600	600	600	600	600	600	600
	IDU power supply	-						38	30V 3N~ 50I	-lz					
Ambient temperature	Ambient temperature for cooling	°C						Fres	sh air 13 to 4	18°C					
range for unit operation	Ambient temperature for heating	°C		Fresh air -15 to 25°C											
Operation	Temperature accuracy	°C					Consta	nt temperati	ure and hum	idity: Cooling	g-only: ±1°C	; heat pump:	±2°C		
accuracy	Humidity accuracy	-		Constant temperature and humidity: Cooling-only: ±5%; heat pump: ±10%											
Compressor	Туре	-				Rotor co	mpressor				Scroll compres- sor		Rotor co	mpressor	
-	Quantity	-	1	1	1	1*2	1	1*2	1	1*2	1	1*2	2	2	2
	Number of fans	-	1	2	2	1*2	2	2*2	1	2*2	2	2*2	2	2	2
ODU Fan motor	Air discharge mode	-			Axial flow si	ide air outlet			Axial flow upper air outlet	Axial flow side air outlet		Axial f	low upper ai	r outlet	
	Maximum air flow	m³/h	5000	8000	8000	5000*2	11300	8000*2	13980	8000*2	25800	11300*2	25800	25800	27000
	Width	mm	985	985	985	985	1100	985	1240	985	1500	1100	1500	1500	1900
Single ODU Dimensions	Depth	mm	466	466	466	466	450	466	860	466	860	450	860	860	860
and weight	Height	mm	840	1264	1264	840	1550	1264	1690	1264	1690	1550	1690	1690	1690
	Net Weight	kg	84	125	125	84	212	125	277	125	320	212	325	330	420
Refrigerant	Туре	-							R410A						
rtenigerant	ODU charge amount ²	kg	3.5	5.5	7.5	3.5*2	8	5.5*2	13.5	7.5*2	16.5	8*2	16.5	16.5	17
	Liquid pipe * number	mm	9.52	9.52	12.7	9.52*2	12.7	9.52*2	12.7	12.7*2	15.88	12.7*2	19.05	19.05	19.05
Connecting	Steam pipe * number	mm	15.88	19.05	22.23	15.88*2	25.4	19.05*2	28.58	22.23*2	28.58	25.4*2	31.75	31.75	31.75
pipe	Limit length/height di connecting		30/20	50	/20	30/20	100/50	50/20	100/50	50/20	100/50	100/50	100/50	100/50	100/50
			1												
Condensate	ODU connection mode ³ Water pan pipe	-							Welding						

Note: 1. Rated capacity and rated power are measured under the following conditions:

Rated cooling capacity is nominal air volume, indoor and outdoor dry-bulb temperature is 35/28°C;

Rated heating capacity is nominal air volume, indoor and outdoor dry-bulb temperature is $7/6^{\circ}\text{C}$;

Performance test piping condition is equivalent to 7.5m (horizontal) pipe length.

- 2. The unit has been filled with refrigerant according to the nameplate refrigerant amount before leaving the factory. If the equivalent pipe length exceeds 7.5m, refrigerant needs to be added according to the "Installation and Operation Manual";
- 3. The diameter of the connecting pipe between the internal and external units is the diameter of the external unit, and the internal unit can be reduced in diameter;
- ${\it 4.} \ {\it For more air volume selection}, \ please \ consult \ Briese \ Air \ local \ branch \ and \ office;$
- 5. When the unit inlet temperature is lower than 0°C, if the heat pump needs to be turned on, a preheating section needs to be configured to preheat to above 5°C;
- 6. If there is a need to change the maximum length of the connecting pipe for 6HP-10HP, please communicate with the factory.



Parameters of variable frequency DX units (fresh air purification & fresh air constant temperature and humidity)

	ODU model	BSAV- DRCX	0300	0160*2	0320	0200*2	0240*2	0260*2	0280*2	0300*2	0320*2	0240*3	0260*3	0280*3
Model	IDU model	BAC/BBC	016022	016024	016024	020022	020026	020028	020032	022028	022030	023033	026031	026033
	Capacity	HP	30	32	32	40	48	52	56	60	64	72	78	84
Rated	Rated cooling capacity	kW	85.00	90.00	90.00	112.00	135.00	147.00	157.00	170.00	180.00	202.50	220.50	235.50
capacity ¹	Rated heating capacity	kW	79.50	86.00	85.00	104.00	123.00	133.00	150.00	159.00	170.00	184.50	199.50	225.00
	Rated cooling power ¹	kW	22.95	24.60	24.78	31.40	36.40	38.80	40.70	45.90	49.56	54.60	58.20	61.05
	Rated heating power ¹	kW	22.85	24.00	24.30	28.80	36.20	38.40	40.36	45.70	48.60	54.30	57.60	60.54
ODU power	Maximum operating power	kW	34.45	44.00	36.50	52.00	60.00	63.60	64.00	68.90	73.00	90.00	95.40	96.00
	Maximum operating current	А	61.45	73.00	63.50	86.00	100.00	105.00	113.10	122.90	127.00	150.00	157.50	169.65
	ODU power supply	-						380V 31	√~ 50Hz					
	Nominal IDU air flow	m³/h	5500	5800	5800	7200	8700	9500	10100	11000	11600	13050	14250	15150
IDU	Cooling coil section length for reference	mm	600	600	600	600	800	800	800	800	800	800	800	800
	IDU power supply	-						380V 31	N~ 50Hz					
Ambient temperature	Ambient temperature for cooling	°C		Fresh air 13 to 48°C										
range for unit operation	Ambient temperature for heating	°C		Fresh air -15 to 25°C										
Operation	Temperature accuracy	°C					Constant ter	nperature and	d humidity: Co	ooling-only: ±1	l°C; heat pum	ıp: ±2°C		
accuracy	Humidity accuracy	-					Constant ter	nperature and	d humidity: Co	ooling-only: ±5	5%; heat pum	p: ±10%		
	Туре	-	R	otor compress	sor	Scroll compressor				Rotor co	mpressor			
Compressor	Quantity	-	2	1*2	2	1*2	2*2	2*2	2*2	2*2	2*2	2*3	2*3	2*3
	Number of fans	-	2	1*2	2	2*2	2*2	2*2	2*2	2*2	2*2	2*3	2*3	2*3
ODU Fan motor	Air discharge mode	-						Axial flow up	per air outlet					
	Maximum air flow	m³/h	27000	13980*2	27000	25800*2	25800*2	25800*2	27000*2	27000*2	27000*2	25800*3	25800*3	27000*3
	Width	mm	1900	1240	1900	1500	1500	1500	1900	1900	1900	1500	1500	1900
Single ODU	Depth	mm	860	860	860	860	860	860	860	860	860	860	860	860
Dimensions and weight	Height	mm	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690
	Net Weight	kg	430	277	430	320	325	330	420	430	430	325	330	420
D. ()	Туре	-						R4	10A					
Refrigerant	ODU charge amount ²	kg	20	13.5*2	20	16.5*2	16.5*2	16.5*2	17*2	20*2	20*2	16.5*3	16.5*3	17*3
	Liquid pipe * number	mm	19.05	12.7*2	19.05	15.88*2	19.05*2	19.05*2	19.05*2	19.05*2	19.05*2	19.05*3	19.05*3	19.05*3
Connecting	Steam pipe * number	mm	31.75	28.58*2	31.75	28.58*2	31.75*2	31.75*2	31.75*2	31.75*2	31.75*2	31.75*3	31.75*3	31.75*3
pipe	Limit length/height di connecting							100)/50					
	ODU connection mode ³	-						Wel	ding					
Condensate water	Water pan pipe diameter	-		Welding DN32										

Note: 1. Rated capacity and rated power are measured under the following conditions:

Rated cooling capacity is nominal air volume, indoor and outdoor dry-bulb temperature is 35/28°C;

Rated heating capacity is nominal air volume, indoor and outdoor dry-bulb temperature is 7/6 $^{\circ}\text{C};$

Performance test piping condition is equivalent to 7.5m (horizontal) pipe length.

- 2. The unit has been filled with refrigerant according to the nameplate refrigerant amount before leaving the factory. If the equivalent pipe length exceeds 7.5m, refrigerant needs to be added according to the "Installation and Operation Manual";
- 3. The diameter of the connecting pipe between the internal and external units is the diameter of the external unit, and the internal unit can be reduced in diameter;
- 4. For more air volume selection, please consult Briese Air local branch and office;
- 5. When the unit inlet temperature is lower than 0°C, if the heat pump needs to be turned on, a preheating section needs to be configured to preheat to above 5°C;
- 6. If there is a need to change the maximum length of the connecting pipe for 6HP-10HP, please communicate with the factory.

Parameters of variable frequency DX units (fresh air purification & fresh air constant temperature and humidity)

	ODU model	BSAV- DRCX	0300*3	0320*3	0260*4	0280*4	0300*4	0320*4	0240*6	0260*6	0280*6	0300*6	0320*6	
Model	IDU model	BAC/BBC	026034	026037	028038	030039	030041	030044	032043	035044	037046	038050	042047	
	Capacity	HP	90	96	104	112	120	128	144	156	168	180	192	
Rated	Rated cooling capacity	kW	255.00	270.00	294.00	314.00	340.00	360.00	405.00	441.00	471.00	510.00	540.00	
capacity ¹	Rated heating capacity	kW	238.50	255.00	266.00	300.00	318.00	340.00	369.00	399.00	450.00	477.00	510.00	
	Rated cooling power ¹	kW	68.85	74.34	77.60	81.40	91.80	99.12	109.20	116.40	122.10	137.70	148.68	
	Rated heating power ¹	kW	68.55	72.90	76.80	80.72	91.40	97.20	108.60	115.20	121.08	137.10	145.80	
ODU power	Maximum operating power	kW	103.35	109.50	127.20	128.00	137.80	146.00	180.00	190.80	192.00	206.70	219.00	
	Maximum operating current	А	184.35	190.50	210.00	226.20	245.80	254.00	300.00	315.00	339.30	368.70	381.00	
	ODU power supply	-						380V 3N~ 50H:	Z					
	Nominal IDU air flow	m³/h	16500	17400	19000	20200	22000	23200	26100	28500	30300	33000	34800	
IDU	Cooling coil section length for reference	mm	800	800	900	900	900	900	900	900	900	900	900	
	IDU power supply	-		·	'	'	:	380V 3N~ 50H:	Z		'	'		
Ambient temperature	Ambient temperature for cooling	°C					Fre	esh air 13 to 48	3°C					
range for unit operation	Ambient temperature for heating	°C		Fresh air -15 to 25°C										
Operation	Temperature accuracy	°C				Cor	stant tempera	ture and humid	lity: Cooling-on	ly: ±1°C; heat	pump: ±2°C			
accuracy	Humidity accuracy	-				Cor	stant tempera	ture and humid	lity: Cooling-on	ly: ±5%; heat լ	pump: ±10%			
	Туре	-					R	otor compress	or					
Compressor	Quantity	-	2*3	2*3	2*4	2*4	2*4	2*4	2*6	2*6	2*6	2*6	2*6	
	Number of fans	-	2*3	2*3	2*4	2*4	2*4	2*4	2*6	2*6	2*6	2*6	2*6	
ODU Fan motor	Air discharge mode	-				1	Axial	flow upper air	outlet	ı				
	Maximum air flow	m³/h	27000*3	27000*3	25800*4	27000*4	27000*4	27000*4	25800*6	25800*6	27000*6	27000*6	27000*6	
	Width	mm	1900	1900	1500	1900	1900	1900	1500	1500	1900	1900	1900	
Single ODU	Depth	mm	860	860	860	860	860	860	860	860	860	860	860	
Dimensions and weight	Height	mm	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	
	Net Weight	kg	430	430	330	420	430	430	325	330	420	320	430	
	Туре	-		1		ı		R410A		ı				
	1,450								40.5*0	16.5*6	17*6	0040	20*6	
Refrigerant	ODU charge	kg	20*3	20*3	16.5*4	17*4	20*4	20*4	16.5*6	10.5 0	17.0	20*6	20 0	
Refrigerant	ODU charge amount ² Liquid pipe *	kg mm	20*3 19.05*3	20*3 19.05*3	16.5*4 19.05*4	17*4 19.05*4	20*4 19.05*4	19.05*4	19.05*6	19.05*6	19.05*6	19.05*6		
	ODU charge amount ² Liquid pipe * number Steam pipe *						-						19.05*6	
Refrigerant Connecting pipe	ODU charge amount ² Liquid pipe * number Steam pipe * number Limit length/height di	mm mm	19.05*3	19.05*3	19.05*4	19.05*4	19.05*4	19.05*4	19.05*6	19.05*6	19.05*6	19.05*6	19.05*6 31.75*6	
Connecting	ODU charge amount ² Liquid pipe * number Steam pipe * number	mm mm	19.05*3	19.05*3	19.05*4	19.05*4	19.05*4	19.05*4 31.75*4	19.05*6	19.05*6	19.05*6	19.05*6	19.05*6	

Note: 1. Rated capacity and rated power are measured under the following conditions:

Rated cooling capacity is nominal air volume, indoor and outdoor dry-bulb temperature is 35/28°C;

Rated heating capacity is nominal air volume, indoor and outdoor dry-bulb temperature is 7/6°C;

Performance test piping condition is equivalent to 7.5m (horizontal) pipe length.

- 2. The unit has been filled with refrigerant according to the nameplate refrigerant amount before leaving the factory. If the equivalent pipe length exceeds 7.5m, refrigerant needs to be added according to the "Installation and Operation Manual";
- 3. The diameter of the connecting pipe between the internal and external units is the diameter of the external unit, and the internal unit can be reduced in diameter;
- ${\it 4.} \ {\it For more air volume selection, please consult Briese Air local branch and office;}$
- 5. When the unit inlet temperature is lower than 0°C, if the heat pump needs to be turned on, a preheating section needs to be configured to preheat to above 5°C;
- 6. If there is a need to change the maximum length of the connecting pipe for 6HP-10HP, please communicate with the factory.



Parameters of variable frequency split-type deep dehumidification performance

	Horse p	ower		(6	8	3	1	0	1	2	1	6	20
	ODU mode	I * quantity	BSAV	006	60*1	008	30*1	010	0*1	012	0*1	016	0*1	0200*1
Model	IDU cabinet s	pecifications	BAC/BBC	012017	016020	016020	016024	016024	020024	020024	020028	020028	022030	022030
R	ated cooling capa	acity	kW	15	15	24.5	24.5	28	28	32	32	45	45	56
	Rated air flow		m³/h	3000	5000	5000	6500	6500	8500	8500	10300	10300	13000	13000
	Air flow range		m³/h	1600-3300	2500-5500	2500-5500	3250-7300	3250-7300	3900-9200	3900-9200	5000-11000	5000-11000	6000-13500	6000-13500
Number of	of optional rows of	of water coil	ROW						6–8					
	Air inlet dew po		°C						13–18					
Deep dehu- midification	Water coil + fluo		mm						900					
module IDU	Coil res	istance	Pa						150					
	Power	supply	-						380V 3N~ 5	50Hz				
	Cor	mpressor type						DO	C inverter con	npressor				
	Thro	ttle component							EXV					
		Length	mm	985	985	985	985	985	985	1100	1100	1240	1240	1500
	Dimensions (Single ODU)	Width	mm	466	466	466	466	466	466	450	450	860	860	860
		Height	mm	840	840	1264	1264	1264	1264	1550	1550	1690	1690	1690
ODU	Weight (sir	ngle ODU)	kg	84	84	125	125	125	125	212	212	277	277	320
	Power		-	220V~	- 50Hz					380V 3N~ 5	i0Hz			
	Power input	Rated Power (W)	kW	5.10	5.10	6.63	6.63	7.47	7.47	8.7	8.7	12.3	12.3	15.7
	(Single ODU)	Maximum power	kW	7	7	10.8	10.8	13.5	13.5	16.5	16.5	22	22	26
	Input current	Rated current	А	28.6	28.6	11.24	11.24	12.33	12.33	14.3	14.3	21.3	21.3	26.1
	(Single ODU)	Maximum current	A	32	32	18	18	22.5	22.5	26.5	26.5	36.5	36.5	43
Refrigerant		Model							R410a					
Kemgerant	Charge	amount	kg	3.5	3.5	5.5	5.5	7.5	7.5	8.5	8.5	13.5	13.5	16.5
	Cor	nnection mode							Welding					
Connection pipe	Dimensions of ODU	Liquid pipe	φmm	9.52	9.52	9.52	9.52	12.7	12.7	12.7	12.7	12.7	12.7	15.88
	connecting pipe Gas pipe		φmm	15.88	15.88	19.05	19.05	22.33	22.23	25.4	25.4	28.58	28.58	28.58
Water p	Water pipe diameter of condensate water pan								DN32					

Parameters of variable frequency split-type deep dehumidification performance

	Horse po		24	26	3	2	3	2	40	4	8	60	80	
	ODU model	1 * quantity	BSAV	0120*2	0260*1	0320*1	0320*1	016	60*2	0200*2	016	0*3	0200*3	0200*4
Model	IDU cabinet s	pecifications	BAC/BBC	026035	026035	026035	026040	026035	026040	026040	030046	037043	037043	042049
Ra	ated cooling capa	city	kW	64	73.5	90	90	90	90	112	135	135	168	224
	Rated air flow		m³/h	18000	18000	18000	21000	18000	21000	21000	25000	31000	31000	38000
	Air flow range		m³/h	9000-19500	9000-19500	9000-19500	10500-22500	9000-19500	10500-22500	10500-22500	12500–26500	16500–34000	16500-34000	18500-42000
Number o	of optional rows o	f water coil	ROW						6–8					
	Air inlet dew poi		°C						13–18					
Deep dehu-	Water coil + section	fluorine coil	mm				900					10	100	
midification module IDU	Coil resi		Pa						150					
	Powers	supply	-					3	380V 3N~ 50H	Z				
	Compres	sor type						DC in	nverter compre	essor				
	Throttle co	mponent							EXV					
		Length	mm	1100	1500	1900	1900	1240	1240	1500	1240	1240	1500	1500
	Dimensions (Single ODU)	Width	mm	450	860	860	860	860	860	860	860	860	860	860
	, ,	Height	mm	1550	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690
ODU	Weight (sin	igle ODU)	kg	212	330	430	430	277	277	320	277	277	320	320
	Powers	supply	-					3	880V 3N~ 50H	Z			,	
	Power input	Rated Power (W)	kW	8.7	19.4	24.78	24.78	12.3	12.3	15.7	12.3	12.3	15.7	15.7
	(Single ODU)	Maximum	kW	16.5	31.8	36.5	36.5	22	22	26	22	22	26	26
	Input current	Rated current	А	14.3	44.5	54.5	54.5	21.3	21.3	26.1	21.3	21.3	26.1	26.1
	(Single ODU)	Maximum current	А	26.5	52.5	63.5	63.5	36.5	36.5	43	36.5	36.5	43	43
	Mod	-							R410a				l .	
Refrigerant	Charge a	amount	kg	8.5*2	16.5	20	20	13.5*2	13.5*2	16.5*2	13.5*3	13.5*3	16.5*3	16.5*4
	Connection	on mode							Welding					
Connection pipe	<u> </u>	Liquid pipe	φmm	12.7*2	19.05	19.05	19.05	12.7*2	12.7*2	15.88*2	12.7*3	12.7*3	15.88*3	15.88*4
	Dimensions	Gas pipe	φmm	25.4*2	31.75	31.75	31.75	28.58*2	28.58*2	28.58*2	28.58*3	28.58*3	28.58*3	28.58*4
Water pi	Water pipe diameter of condensate water pan								DN32					

Notes: 1. Piping conditions for unit performance test: equivalent refrigerant length 7.5m (horizontal);

- 2. Ambient temperature range for cooling operation of fresh air unit: 13~48°C;
- 3. For wiring specifications of the external unit, please refer to the sample "Electrical Parameter Table". Be sure to refer to the maximum power and maximum current when distributing power;
- 4. The diameter of the refrigerant pipe between the internal and external units is consistent with the diameter of the refrigerant pipe of the external unit.

Notes: 1. Piping conditions for unit performance test: equivalent refrigerant length 7.5m (horizontal);

- 2. Ambient temperature range for cooling operation of fresh air unit: 13~48°C;
- 3. For wiring specifications of the external unit, please refer to the sample "Electrical Parameter Table". Be sure to refer to the maximum power and maximum current when distributing power;
- 4. The diameter of the refrigerant pipe between the internal and external units is consistent with the diameter of the refrigerant pipe of the external unit.

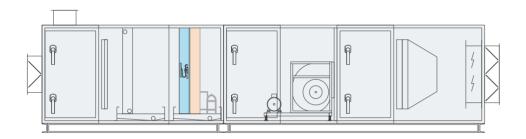


Performance Deviation

Double cold source integrated deep dehumidification performance verification table

In places where temperature and humidity control is required, such as clean operating rooms in hospitals, it is usually necessary to concentrate and deeply dehumidify the fresh air to bear the indoor humidity load. The water meter cooling plus fluorine meter cooling solution is adopted, and cold water is used to flexibly adjust the stable air outlet temperature. The refrigerant in the rear stage directly evaporates to ensure deep dehumidification, reducing the requirements for the quality of the cold source in the front stage.

Conventional function section arrangement



Specifications of Deep Dehumidification Fresh Air Handling Unit (Integral)

				,		
Mo	odel	BAC	02026	020030	022032	026034
		BBC				
Air	flow	m³/h	6500	8000	10000	12500
Air flo	w range	m³/h		Standard air flow * 60%≤Air	r flow≤Standard air flow * 11	0%
Nu	mber of optional rows of wa	ter coil		6 to	8 rows	
	Compressor HP	-	4Hp	5Hp	6Hp	8Hp
	Cooling capacity of the evaporator	kW	12	14.5	18.5	23.2
	Heating capacity of the condenser	kW	15.2	18.2	22.7	28.7
	Dew-point temperature range of the air inlet machine of the evaporator	°C		12°C	to 18°C	
Deep dehumidification module	Compressor type	-		Hermetic sc	roll compressor	
	Rated power input of the compressor	kW	2.70	3.5	3.7	4.2
	Rated current of the compressor	А	4.9	6.6	7.1	8.1
	Defriessent	Model		R	410A	
	Refrigerant	Charge amount	2.6	2.8	3.2	3.8
	Module section length	mm		1	1200	
Fan	form	-		Belt-driven low n	oise centrifugal type	
Power supp	oly of the unit	-		380V 3	3N~ 50Hz	
Water p	pipe diameter of condensate	water pan		D	N32	

Note: 1. The cooling capacity of the integrated deep dehumidification module is measured under the conditions of evaporator inlet dry-bulb temperature of 14/13.5°C and nominal air volume;

The cooling capacity of the split deep dehumidification module is measured under the conditions of evaporator inlet dry-bulb temperature of 16/15.5°C and nominal air volume;

- 2. The integrated deep dehumidification module has been filled with refrigerant before leaving the factory, and the outdoor unit of the split deep dehumidification module has been filled with refrigerant, and the internal unit is kept pressurized with nitrogen;
- 3. The compressor of the integrated deep dehumidification module is placed in the air conditioning box, without outdoor unit;
- 4. Specifications are subject to change due to product improvement without further notice, please refer to the unit nameplate.

Performance Deviation

Variable frequency DX outdoor unit performance verification table

The cooling and heating capacity of the direct expansion machine is closely related to the actual use of the system. When selecting the outdoor unit, be sure to refer to the following performance deviation table to check the performance.

For example: the actual working environment of the outdoor unit is 30°C, the air supply temperature of the indoor unit is 18°C, and the total length of the equivalent connecting pipe is 45m without height difference.

Then the actual refrigeration performance correction coefficient of the outdoor unit = K1×K2×K3×K4=1.08×1.12×0.92×1=1.11

1. Ambient temperature and outlet air temperature deviation correction factors K1 and K2

ODU ambient temperature (°C)	26	28		30	3	35	3	8		40		43	48
Cooling capacity correction factor K1	1.13	1.1		1.08		1	0.9	96		0.94		0.89	0.85
ODU ambient temperature (°C)	-20	-15		-	7	()		7		1	15	25
Heating capacity correction factor K1'	0.56	0.7	5	0.	81	0	.9		1		1	.1	1.2
												·	
Air outlet temperature of IDU evaporator (°C)	4	5	6		7		8	9		10		11	12
Cooling capacity correction factor K2	0.74	0.77	0.8	0	0.83	0.	86	0.89		0.93		0.97	1.00

2. Connecting pipe length correction factor K3

When the connecting pipe between IDU and ODU is too long, or the height difference is too large, the ODU capacity should be corrected according to the correction factor K3 in the following table

0								Equival	ent total ler	ngth (m)						
Correcti	on factor	5m	10m	15m	20m	25m	30m	35m	40m	45m	50m	60m	70m	80m	90m	100m
	0m	1.000	0.990	0.980	0.970	0.960	0.950	0.940	0.930	0.920	0.910	0.900	0.890	0.880	0.870	0.860
Haiaht	10m		0.970	0.960	0.950	0.940	0.930	0.920	0.910	0.900	0.890	0.875	0.870	0.866	0.862	0.858
Height difference between the	20m				0.930	0.920	0.910	0.900	0.890	0.880	0.870	0.867	0.864	0.861	0.858	0.856
ODU and	30m						0.900	0.883	0.877	0.871	0.865	0.862	0.860	0.858	0.856	0.854
IDU -	40m								0.870	0.865	0.860	0.858	0.856	0.854	0.853	0.852
	50m										0.855	0.854	0.853	0.852	0.851	0.850

Note: 1. The equivalent total length of the equivalent connecting pipe refers to the total length of the straight pipe of the pipeline (including horizontal and vertical connecting pipes), plus the sum of the equivalent lengths of elbows and oil storage bends;

2. Note that the maximum equivalent connecting pipe length and maximum height difference of different models are different, see "Product Parameters" for details.

3. High altitude correction factor K4

The variable frequency DX unit can be used in high altitude areas. When the altitude is higher than 2000 meters, correct it according to the following table

Altitude (m)	2000	2200	2400	2600	2800	3000	3200	3400	3600	3800	4000
Cooling attenuation factor K4	0.9	0.89	0.88	0.87	0.86	0.85	0.84	0.82	0.8	0.78	0.76
Cooling attenuation factor K4'	0.9	0.89	0.88	0.87	0.85	0.83	0.81	0.79	0.77	0.75	0.72

Note: When the altitude exceeds 3000 meters, the electrical components of the internal machine need to be adjusted. Please consult the local branch or office of Brise Air

BCARE



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To customers quickly and effectively.

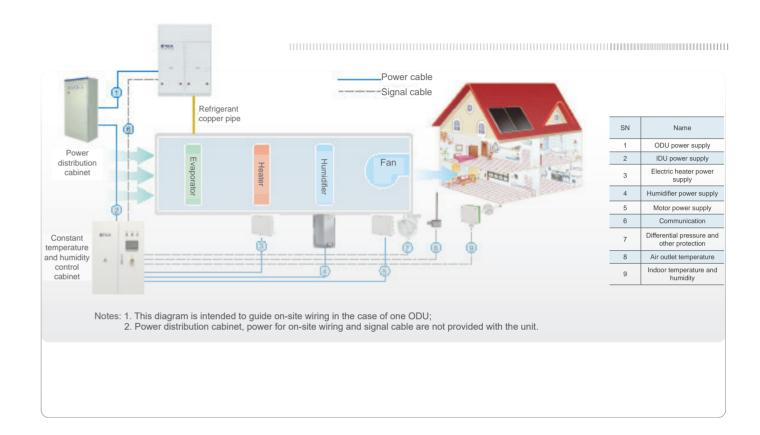
Briese Air has developed digital services to bring customers into the cloud era, and to oversee the operation and maintenance of products with services such as data monitoring, fault prediction and resolution, customized maintenance and remote hosting.

Installation

BRIESE AIR DX AIR HANDLING UNIT

Install unit

Electrical wiring diagram (taking the constant temperature and humidity system as an example)



Schematic diagram of internal and external unit installation

Depending on the installation position of the indoor unit and outdoor unit, an oil return bend must be installed on the gas pipe (outdoor unit on top) or a liquid check ring must be installed on the gas-liquid pipe (outdoor unit on the bottom). Please refer to the installation and operation manual for details.





Installation requirements of IDU-ODU connecting pipe

It is recommended that the installation distance between the indoor and outdoor units should not be too long to avoid affecting the cooling/heating capacity. If the indoor and outdoor units are installed at a long distance/high height due to space limitations, the total length of the equivalent connecting pipe 3, the height difference between the indoor and outdoor units, and the total number of intermediate elbows of each model should not exceed the range in the table below.

Note that when using long connecting pipes for some models, the connecting pipe diameter needs to be enlarged according to the table below and the corresponding mass of refrigerant needs to be added.

ODU del	Limit length/height difference (m) of	Dimensions of IDU-ODI	U connecting pipe (mm)	Added quantity of refrigerant (kg/m)
ODU model	connecting pipe (m)	Liquid pipe	Gas pipe	when pipe length > 7.5 m
BSAX0030DRC	15m/10m	6.35	15.88	0.02
BSAX0080DRC	35m/20m	9.52*2	15.88*2	0.03*2
BSAX0100DRC	35m/20m	9.52*2	15.88*2	0.03*2
BSAX0125DRC	35m/20m	9.52*2	15.88*2	0.03*2
BSAX0150DRC	35m/20m	12.7*2	19.05*2	0.055*2
BSAX0200DRC	40m/20m	12.7*2	22.23*2	0.055*2
BSAX0250DRC	40m/20m	12.7*2	25.4*2	0.055*2
BSAX0600DRC	40m/20m	19.05*2	34.92*2	0.275*2
BSAX1100/1200DRC	40m/20m	19.05*4	34.92*4	0.275*4
BSAV0060DRCX	30m/20m	9.52	15.88	0.057
BSAV0080DRCX	50m/20m	9.52	19.05	0.057
BSAV0100DRCX	50m/20m	12.7	22.23	0.11
	≤50m/50m	12.7	25.4	0.11
BSAV0120DRCX	50–90m/50m	12.7	28.58	0.11
	100m/50m	15.88	28.58	0.17
	≤50m/50m	12.7	28.58	0.11
BSAV0160DRCX	50–90m/50m	12.7	31.75	0.11
	100m/50m	15.88	31.75	0.17
	≤50m/50m	15.88	28.58	0.17
BSAV0200DRCX	50–90m/50m	15.88	31.75	0.17
	100m/50m	19.05	31.75	0.26
	≤50m/50m	19.05	31.75	0.26
BSAV0240/0260/0280DRCX	50–90m/50m	19.05	31.75	0.26
	100m/50m	22.23	34.92	0.36
	≤50m/50m	19.05	31.75	0.26
BSAV0300/0320DRCX	50–90m/50m	19.05	31.75	0.26
	100m/50m	22.23	34.92	0.36

Equivalent lengths of elbow and oil trap

Outer diameter of connection pipe (mm)	φ9.52 (3/8")	φ12.7 (1/2")	φ15.88 (5/8")	φ22.23 (7/8")	φ28.6 (1-1/8")	φ34.9 (1-3/8")	φ38.1 (1-1/2")
Elbow (m)	0.2	0.25	0.3	0.4	0.5	0.55	0.55
Oil trap (m)	1.4	1.8	2	2.8	3.7	4.1	4.1

Electrical parameters of ODU (single-module and multi-module single unit)

0011	Power supply		Recor	mmended ODU powe	Communication line			
ODU model	Туре	Voltage range	Cross section (mm²)	Pieces	Length (m)	Cross section (mm²)		
BSAX0030DRC	220V~ 50Hz	242/198V	2.5	3		2.5 (6 pcs.)		
BSAX0080DRC		440/040/4	6	5	≤15			
BSAX0100DRC			6					
BSAX0125DRC	380V 3N~ 50Hz		6			1.5mm ² polyethylene shielded twisted pair		
BSAX0150DRC	360V 3N~ 50HZ	418/342V	10	5				
BSAX0200DRC			10					
BSAX0250DRC			10					
BSAV0060DRCX	2201/ 50H-7	242/198V	6	3	≤20			
BSAVUUUUDRGA	220V~ 50Hz		10		20-50	0.75-1.25mm ² polyethylene shielded twisted pair		
DCAL/0000DDCV	380V 3N~ 50Hz	418/342V	4	5	≤20			
BSAV0080DRCX			6		20–50			
			4		≤20			
BSAV0100DRCX			6		20–50			
BSAV0120DRCX			6		≤20			
			10		20–50			
DOM/O4COD DOV			6		≤20			
BSAV0160DRCX			10		20–50			
DOAVOGODDOV			10		≤20			
BSAV0200DRCX			16		20–50			
BSAV0240/0260/0280DRCX			16		≤20			
			16		20–50			
DC 4\/0200/0220DDC\					≤20	1		
BSAV0300/0320DRCX			25		20–50			

Model	ODU BSAX	0600			1100			1200			
Power supply		380V 3N~ 50Hz									
Power cord	Туре	ODU						ODU			
		Live wire	Neutral line	GND	Live wire	Neutral line	GND	Live wire	Neutral line	GND	
	Sectional area mm2	70	35	35	120	70	70	150	95	95	
	Pieces	3	1	1	3	1	1	3	1	1	
Unit connecting wire	Sectional area mm2	1.5 (shielded cable)						1.5 (shielded cable)			
	Pieces		2		2			2			

Note: 1. The recommended power cord specifications are based on the copper core cable specifications selected for fixed installation of single-core PVC insulated cables laid in the air and the ambient temperature of 40°C. If the on-site installation conditions change, please refer to the power cord specifications provided by the wire manufacturer and consider compatibility as appropriate.

^{2.} If the power cord length exceeds the recommended range, the cross-section of the power cord must be appropriately increased to avoid accidents caused by overload.

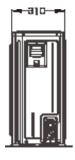


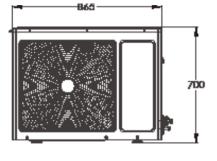
Unit Dimensions -

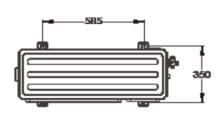
Dimensions

External dimensions of fixed frequency DX ODUs

BSAX0030







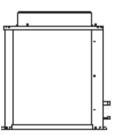
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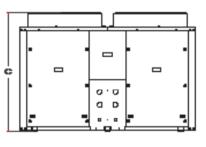
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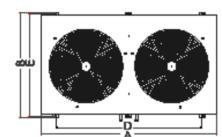
BSAX0125

BSAX0150

BSAX0200 BSAX0250

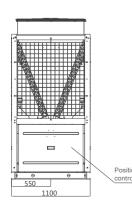


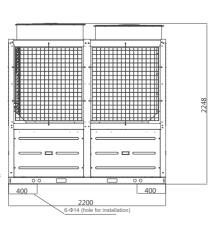


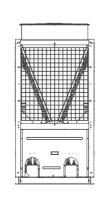


Model	A	В	С	E	Connection mode	
BSAX0080DRC	1403	821	1200	790		
BSAX0100DRC	1403	821	1200	790	Dina analyat	
BSAX0125DRC	BSAX0125DRC 1403		1200	790	Pipe socket	
BSAX0150DRC	1403	821	1200	790		
BSAX0200DR C	1808	1090	1214	1050	Malding	
BSAX0250DRC	1808	1090	1214	1050	Welding	

BSAX0600

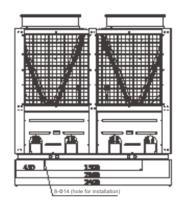


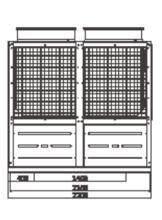


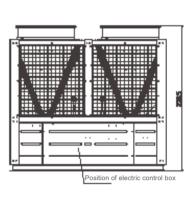


BSAX1100

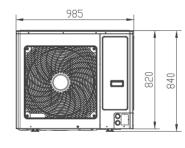
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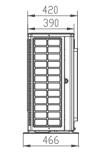


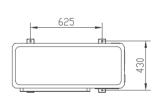




BSAV0060

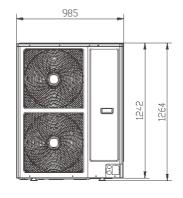


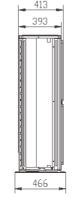


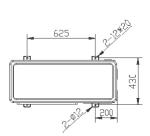


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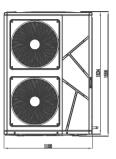




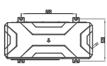




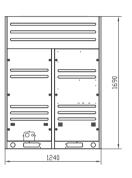
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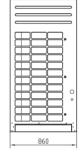


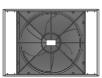




BSAV0160



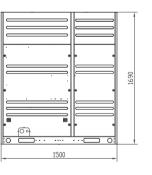


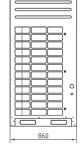


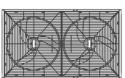
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BSAV0240

BSAV0260



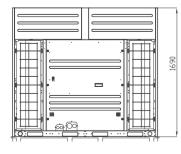


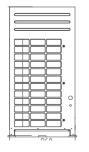


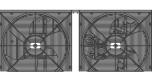
BSAV0280

BSAV0300

BSAV0320







Warranty

DX air handling unit (ODU)

	Check whether the unit generates any alarm				
	Check for any abnormal compressor or fan noise				
	3. Check for odors inside the startup cabinet and control cabinet				
Monthly inspection	Check whether the temperature sensor and temperature probe are securely fixed				
	5. Check for any appearance damage of the unit and whether heat exchanger or discharge fan is blocked				
	6. Check for leakage in the refrigerant loop (whether there is any greasy dirt or sound of leak)				
	7. Check whether the control cabinet is securely wired, whether wiring terminals are clean, whether the unit leaks, and whether contactor works properly				

Notes: 1. Monthly inspections are to be performed and recorded by the user.

- 2. The replacement of consumable parts and materials is determined by the service life or operation duration of the unit. For units that operate all year around and those for the purpose of process, the operation duration should prevail; for units under normal operation and those for comfort, the service life should prevail.
- 3. It is recommended that the unit should be fully maintained every three years or every 3,000 hours of machine operation. For clean units with purification requirements, shorten the maintenance time interval according to the user's cleaning requirements.

 For units with severe environmental conditions, they should be maintained monthly according to the inspection conditions.

DX air handling unit (IDU)

Check Item			Monthly	Quarter- ly	Year	Concerns
	Air inlet section	Check whether the filter is dirty and clogged.	*	*	*	The final pressure drop of the unit reaches the requirements. (For the alarm values, see the technical manual.)
	Coil Section -	Cooling coil	☆	☆	*	Check whether the surface is full of dust, oil stain, impurities, etc.
		Fluorine coil	☆	☆	☆	Check whether the surface is full of dust, oil stain, impunities, etc.
		Steam coil	☆	☆	*	Check whether the steam gauge pressure of the gas supply pressure is between 0.2 MPa and 0.4 MPa. Check whether the steam trap is dirty and clogged.
Air-side cabinet		Condensate water pan and drainage pipe	☆	☆	☆	Check whether they are dirtied and clogged. Check whether water drainage is smooth.
	Humidification section	Electrode humidifier	*	*	*	Clean the humidifying barrel per 200 hours. Replace the electrode every 2000 hours.
		Dry steam humidifier	☆	☆	☆	
	Fan section	Measure the belt tension.	☆	☆	☆	Check for cracks.
		Inspection of fan and motor bearing	*	*	*	Normally, the lubricating grease should be replaced after the fan has operated for 1,500 hours. If the fan operates continuously for 24 hours, replace the lubricating grease every 500 to 700 hours of operation.
	Electrical control cabinet	Fuse	☆	☆	☆	Break
		Contactor	û	☆	☆	Serious contact electrocorrosion or noise during running.
		Sensor	û	☆	☆	Measured value still varies from the actual value even after calibration.
Electrical control and electrical		High pressure switch	☆	☆	☆	Controller false alarm.
		Check whether the wiring point is loose.	*	*	*	The contactor gets loose or can flexibly rotate when turning the connecting cable.
		Checking power supply	*	*	*	Rated voltage ±10%, phase-to-phase unbalance < 2%.
		Checking phase	异	☆	☆	No phase loss or reverse phase

Notes

- ① ★-----Items that must be maintained or replaced. ☆----- Determine the items to be maintained according to actual conditions.
- 2 Daily and monthly inspections should be performed and recorded by the user.
- ③ The replacement of consumable parts and materials is determined by the service life or operation duration of the unit. For units that operate all year around and those for the purpose of process, the operation duration should prevail; for units under normal operation and those for comfort, the service life should prevail.
- (4) It is recommended that the unit should be fully maintained every one year or every 1000 hours of machine operation. For clean units with purification requirements, shorten the maintenance time interval according to the user's cleaning requirements. For units with severe environmental conditions, they should be maintained monthly according to the inspection conditions.



Genius of the air









