ARTECO™

PRODUCT BROCHURE

Condensing Units and Air Coolers

Make people and the environment on Earth more comfortable

ARTECO™

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GUANGDONG ARTECO REFRIGERATION CO., LTD.

Contents

Condensing Units

Air Coolers

COMPANY PROFILE

ARTECO is a leading manufacturer of refrigeration equipment and energy-saving systems. We specialize in designing tailored solutions to meet the diverse needs of customers across industries such as food processing, cold storage and logistics, retail, dairy, seafood exports, warehousing, hospitality, pharmaceuticals, industrial cooling, and cold chain operations.

Committed to sustainability, ARTECO focuses on reliable quality, responsible practices, and customer satisfaction. An experienced in-house team leverages cutting-edge technologies developed through global collaboration.

With regional service centers in major Chinese cities (Guangzhou, Shenzhen, Shanghai, Xi'an, Zhengzhou) and international bases (Tokyo, Kuala Lumpur, Riyadh), ARTECO is able to closely connect with local customers, providing tailored services ranging from system design to commissioning and comprehensive aftermarket support worldwide.

15+
Years of Experience

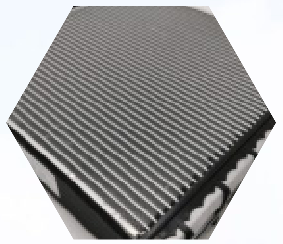
3,500+
Customer Cases

70+
Exported Countries

56%
Proportion of R&D Personnel

Brands We Collaborate With

Reliability



Efficiency

Intelligence

Environment-Friendliness

WEIGUANG 微光电子
SPORLAN
ZIEHL-ABEGG
SANHUA
MaEr Fan Motor
鸿森 HONGSEN
HANBELL
frascold
Danfoss
Bitzer
EMERSON
ebmpapst
DAIKIN
Panasonic
BOCK

BS Series

BS Series Box-Type Condensing Units

I . Product Overview

1. BS series box-type condensing units are mainly developed for cold store applications
2. The unit is fitted with Emerson ZB or ZSL series scroll compressor
3. The unit is designed for high temperature, medium temperature and low temperature applications, of which the high-temperature unit is mainly used for the cold store of 5~15°C, and the medium-temperature unit is mainly used for the cold store of -5 ~5 °C,and the low-temperature unit is mainly used for the cold store of-15~-25°C
4. It is equipped with air-conditioner chassis, 6 ultra-low speed fans, aesthetic appearance and low noise, which is quite suitable for residential areas
5. It is wall-mounted, which can be installed on the wall to save installation space
6. It is compatible with R404A, R507A,R22 and other refrigerants

II . Model Description

BS	E	A	F	–	06	H

- H: Applicable Temperature Code
  H: High Temperature, M: Medium Temperature
  L: Low Temperature
- 06: Nominal Power Of Compressor (HP)
- F: Cooling Form: F: Air-cooled, S: Water-cooled
- A: Refrigerant Code, A: R22，B：R404A/R507A
- E: Compressor Brand Code, E: Emerson
- BS: Product Series

III. Main Technical Parameters

3.1 High Temperature Unit

Unit Model				BSEBF-02H	BSEBF-03H	BSEBF-04H	BSEBF-05H	BSEBF-06H
Power Supply				3P/380V/50Hz				
Apply Temp.				5℃~15℃				
Comp.	Model			ZB15KQE	ZB21KQE	ZB29KQE	ZB38KQE	ZB45KQE
	Max.I(A)			6.0	8.0	11.0	13.5	16.1
Capacity /Power (KW)	Evap.	R22	10℃	6.7/1.6	9.8/2.4	13.1/3.1	16.3/3.9	19.6/4.5
			5℃	5.8/1.6	8.4/2.3	11.2/3.0	14.0/3.8	16.9/4.3
			0℃	4.9/1.5	7.1/2.3	9.6/2.9	11.9/3.7	14.4/4.2
		R404A R507A	10℃	6.5/1.8	9.7/2.6	13.2/3.4	16.7/4.3	19.6/4.8
			5℃	5.6/1.7	8.4/2.5	11.4/3.3	14.4/4.2	16.9/4.8
			0℃	4.8/1.7	7.2/2.5	9.8/3.3	12.4/4.1	14.5/4.7
Fan	Voltage(V)			1P/220V/50Hz				
	Current(A)			0.6	0.6	1.2	1.2	1.2
	Power(W)			135	135	135×2	135×2	135×2
	Rev.(r/min)			760	760	760	760	760
Suction Line(mm)				Φ16	Φ16	Φ19	Φ19	Φ19
Liquid Line(mm)				Φ9.52	Φ9.52	Φ12.7	Φ12.7	Φ12.7
Size	L (mm)			960	960	960	960	960
	W (mm)			450	450	450	450	450
	H (mm)			810	810	1260	1260	1260

※Remarks: Parameter calibration working condition, ambient temperature 32 °C, superheat 10K.

3.2 Medium Temperature Units

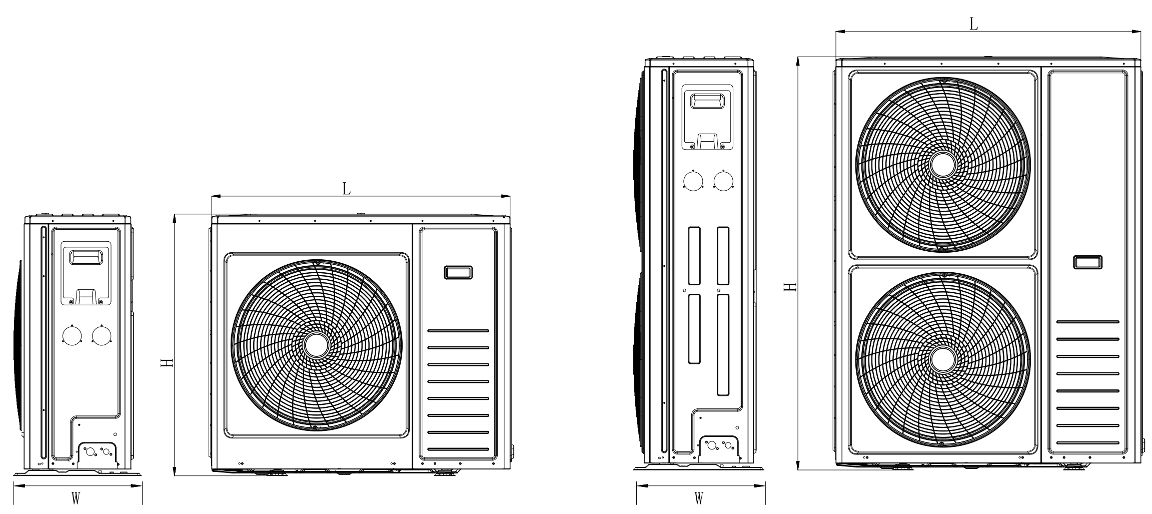
Unit Model				BSEBF-02M	BSEBF-03M	BSEBF-04M	BSEBF-05M	BSEBF-06M
Power Supply				3P/380V/50Hz				
Apply Temp.				5℃~-5℃				
Comp.	Model			ZB15KQE	ZB21KQE	ZB29KQE	ZB38KQE	ZB45KQE
	Max.I(A)			6.0	8.0	11.0	13.5	16.1
Capacity /Power (KW)	Evap.	R22	-5℃	4.1/1.5	5.9/2.2	8.0/2.9	9.9/3.6	12.0/4.2
			-8℃	3.6/1.5	5.3/2.2	7.1/2.8	8.8/3.6	10.7/4.2
			-10℃	3.4/1.5	4.9/2.2	6.6/2.8	8.2/3.5	9.9/4.1
		R404A R507A	-5℃	3.9/1.8	5.9/2.5	8.1/3.3	10.2/4.2	11.9/4.7
			-8℃	3.5/1.8	5.3/2.5	7.1/3.3	9.0/4.2	10.6/4.7
			-10℃	3.3/1.8	4.9/2.5	6.7/3.3	8.5/4.1	9.9/4.6
Fan	Voltage(V)			1P/220V/50Hz				
	Current(A)			0.6	0.6	1.2	1.2	1.2
	Power(W)			135	135	135×2	135×2	135×2
	Rev.(r/min)			760	760	760	760	760
Suction Line(mm)				Φ16	Φ16	Φ19	Φ19	Φ19
Liquid Line(mm)				Φ9.52	Φ9.52	Φ12.7	Φ12.7	Φ12.7
Size	L (mm)			960	960	960	960	960
	W (mm)			450	450	450	450	450
	H (mm)			810	810	1260	1260	1260

※Remarks: Parameter calibration working condition, ambient temperature 32 °C, superheat 10K.

3.3 Low Temperature Unit (with DTC Spray)

Unit Model				BSEBF-02L	BSEBF-03L	BSEBF-04L	BSEBF-05L	BSEBF-06L	BSEBF-07L
Power Supply				3P/380V/50Hz					
Apply Temp.				-15℃~-25℃					
Comp.	Model			ZSI06KQE	ZSI09KQE	ZSI14KQE	ZSI15KQE	ZSI18KQE	ZSI21KQE
	Max.I(A)			5.7	6.7	9.2	11.9	13.7	14.6
Capacity /Power (KW)	Evap.	R22	-20℃	2.3/1.6	3.1/2.0	5.1/3.0	5.7/3.3	7.0/4.2	7.8/4.6
			-25℃	1.9/1.5	2.5/1.9	4.1/2.8	4.8/3.2	5.8/4.0	6.5/4.4
			-30℃	1.6/1.4	1.9/1.9	3.2/2.7	3.9/3.0	4.8/3.8	5.4/4.2
		R404A R507A	-20℃	2.2/1.8	3.1/2.3	5.0/3.2	5.7/3.6	6.9/4.4	7.7/4.9
			-25℃	1.8/1.7	2.6/2.2	4.1/3.1	4.7/3.4	5.8/4.2	6.4/4.7
			-30℃	1.5/1.6	2.1/2.0	3.3/2.9	3.6/3.2	4.7/4.0	5.2/4.4
Fan	Voltage(V)			1P/220V/50Hz					
	Current(A)			0.6	0.6	1.2	1.2	1.2	1.2
	Power(W)			135	135	135×2	135×2	135×2	135×2
	Rev.(r/min)			760	760	760	760	760	760
Suction Line(mm)				Φ16	Φ16	Φ19	Φ19	Φ19	Φ19
Liquid Line(mm)				Φ9.52	Φ9.52	Φ12.7	Φ12.7	Φ12.7	Φ12.7
Size	L (mm)			960	960	960	960	960	960
	W (mm)			450	450	450	450	450	450
	H (mm)			810	810	1260	1260	1260	1260

※Remarks: Parameter calibration working condition, ambient temperature 32 °C, superheat 10K.



BT
Series

BT Series Box-Type Condensing Units

I . Product Overview

The BT series box-type condensing units are developed for cold store applications and offer the following features:

1. Utilizes Emerson ZB or ZFL series fully enclosed scroll compressors known for their high quality and reliability
2. Designed for high, medium, and low-temperature applications. High-temperature units are suitable for 8~15°C cold storage, medium-temperature units for -5 ~ 5°C, and low-temperature units for -15 ~ -35°C
3. Horizontal compact box-type structure with a galvanized steel plate enclosure, coated with silver gray powder for corrosion resistance. Hinged chassis cover for easy maintenance
4. Features a large rounded high fan shroud for excellent air guidance, low noise, and an appealing appear-ance
5. Chassis panel equipped with honeycomb sound-insulation foam to reduce operating noise and sheet metal resonance
6. U-shaped condenser design with fewer pipes, providing a large windward surface and high heat exchange efficiency
7. Equipped with dual fans for noise reduction, improved condensing fan control, and enhanced operational reliability
8. Built-in terminal block for convenient wiring of electrical devices other than the compressor
9. Compatible with refrigerants such as R404A, R507A, R448, R449, R22, and others

II . Model Description

BT	E	A	F	–	06	H

- H: Applicable Temperature Code — H: High Temperature, M: Medium Temperature, L: Low Temperature
- 06: Nominal Power Of Compressor (HP)
- F: Cooling Form: F: Air-cooled, S: Water-cooled
- A: Refrigerant Code, A: R22, B：R404A/R507A
- E: Compressor Brand Code, E: Emerson
- BT: Product Series

BT Series Box-Type Condensing Units

III. Main Technical Parameters

3.1 High Temperature Units

1) Refrigerant R22

Unit Model			BTEAF-06H	BTEAF-07H	BTEAF-08H	BTEAF-09H	BTEAF-10H
Power Supply			3P/380V/50Hz				
Apply Temp.			8℃~15℃				
Comp.	Model		ZB45KQ	ZB48KQ	ZB58KQ	ZB66KQ	ZB76KQ
	Max.I(A)		16.1	17.0	23.0	24.2	26.9
Capacity /Power (KW)	Evap.	10℃	19.6/4.5	21.6/4.9	26.1/5.8	29.3/6.5	34.4/7.7
		5℃	16.9/2.2	18.6/4.7	22.4/5.5	25.3/6.1	29.7/7.3
		0℃	14.5/4.0	16.0/4.5	19.0/5.2	21.6/5.8	25.4/6.9
Fan	Voltage(v)		3P/380V/50HZ				
	Current(A)		1.02	1.02	1.7	1.7	1.9
	Power(W)		2x205	2x205	2x414	2x414	2x500
	Rev.(r/min)		1380	1380	1300	1300	1380
Air Inlet (mm)			ϕ22	ϕ22	ϕ28	ϕ28	ϕ35
Refrigerant Inlet (mm)			ϕ12.7	ϕ12.7	ϕ16	ϕ16	ϕ16
Weight(KG)			166	166	225	227	236

※Remarks: Parameter calibration working condition, ambient temperature 32 °C, superheat 10K.

Unit Model			BTEAF-12H	BTEAF-13H	BTEAF-15H	BTEAF-20H	BTEAF-22H
Power Supply			3P/380V/50Hz				
Apply Temp.			8℃~15℃				
Comp.	Model		ZB88KQ	ZB95KQ	ZB114KQ	ZB130KQ	ZB150KQ
	Max.I(A)		31.0	31.0	38.0	52.3	47.0
Capacity /Power (KW)	Evap.	10℃	39.2/8.7	42.1/9.8	50.7/11.7	56.2/12.4	66.1/15.4
		5℃	34.0/8.2	36.3/9.3	43.6/11.0	48.5/11.8	56.8/14.6
		0℃	29.1/7.8	31.8/8.8	37.2/10.5	41.3/11.2	48.5/13.9
Fan	Voltage(v)		3P/380V/50HZ				
	Current(A)		1.9	1.9	3.2	3.2	3.2
	Power(W)		2x500	2x500	2x800	2x800	2x800
	Rev.(r/min)		1380	1380	1320	1320	1320
Air Inlet (mm)			ϕ35	ϕ35	ϕ35	ϕ42	ϕ42
Refrigerant Inlet (mm)			ϕ16	ϕ16	ϕ22	ϕ22	ϕ22
Weight(KG)			242	245	305	343	403

※Remarks: Parameter calibration working condition, ambient temperature 32 °C, superheat 10K.

2) Refrigerant R404A/R507A

Unit Model			BTEBF-06H	BTEBF-07H	BTEBF-08H	BTEBF-09H	BTEBF-10H
Power Supply			3P/380V/50Hz				
Apply Temp.			8℃~15℃				
Comp.	Model		ZB45KQE	ZB48KQE	ZB58KQE	ZB66KQE	ZB76KQE
	Max.I(A)		16.1	17.0	23.0	24.2	26.9
Capacity /Power (KW)	Evap.	10℃	19.6/4.8	21.5/5.3	25.9/6.6	28.8/7.5	34.2/8.8
		5℃	16.9/4.7	18.6/5.1	22.4/6.4	25.0/7.2	29.7/8.4
		0℃	14.6/4.5	16.0/4.9	19.0/6.1	21.5/6.9	25.6/8.0
Fan	Voltage(v)		3P/380V/50HZ				
	Current(A)		1.02	1.02	1.7	1.7	1.9
	Power(W)		2x205	2x205	2x414	2x414	2x500
	Rev.(r/min)		1380	1380	1300	1300	1380
Air Inlet (mm)			ϕ22	ϕ22	ϕ28	ϕ28	ϕ35
Refrigerant Inlet (mm)			ϕ12.7	ϕ12.7	ϕ16	ϕ16	ϕ16
Weight(KG)			166	166	225	227	236

※Remarks: Parameter calibration working condition, ambient temperature 32 °C, superheat 10K.

Unit Model			BTEBF-13H	BTEBF-15H	BTEBF-20H	BTEBF-22H
Power Supply			3P/380V/50Hz			
Apply Temp.			8℃~15℃			
Comp.	Model		ZB95KQE	ZB114KQE	ZB130KQE	ZB150KQE
	Max.I(A)		31.0	38.0	59.6	44.0
Capacity /Power (KW)	Evap.	10℃	42.0/11.3	50.8/13.4	54.7/13.9	66.2/17.9
		5℃	36.4/10.8	43.9/12.8	47.2/13.3	57.2/16.8
		0℃	31.4/10.3	37.7/12.2	40.5/12.7	49.1/15.9
Fan	Voltage(v)		3P/380V/50HZ			
	Current(A)		1.9	3.2	3.2	3.2
	Power(W)		2x500	2x800	2x800	2x800
	Rev.(r/min)		1380	1320	1320	1320
Air Inlet (mm)			ϕ35	ϕ35	ϕ42	ϕ42
Refrigerant Inlet (mm)			ϕ16	ϕ22	ϕ22	ϕ22
Weight(KG)			245	305	343	403

※Remarks: Parameter calibration working condition, ambient temperature 32 °C, superheat 10K.

BT Series Box-Type Condensing Units

3.2 Medium Temperature Units

1) Refrigerant R22

Unit Model			BTEAF-06M	BTEAF-07M	BTEAF-08M	BTEAF-09M	BTEAF-10M	BTEAF-12M
Power Supply			3P/380V/50Hz					
Apply Temp.			-2℃~5℃					
Comp.	Model		ZB45KQ	ZB48KQ	ZB58KQ	ZB66KQ	ZB76KQ	ZB88KQ
	Max.I(A)		16.1	17.0	23.0	24.2	26.9	31.0
Capacity /Power (KW)	Evap.	-5℃	11.7/4.3	12.8/4.7	14.9/5.6	17.3/6.2	20.1/7.3	23.2/8.3
		-8℃	10.5/4.2	11.5/4.6	13.2/5.5	15.5/6.0	18.3/7.1	20.8/8.0
		-10℃	9.8/4.1	10.8/4.5	12.2/5.3	14.5/5.9	17.1/6.9	19.4/7.8
Fan	Voltage(v)		3P/380V/50Hz					
	Current(A)		1.02	1.02	1.02	1.02	1.02	1.7
	Power(W)		2x205	2x205	2x205	2x205	2x205	2x414
	Rev.(r/min)		1380	1380	1380	1380	1380	1300
Air Inlet (mm)			φ22	φ22	φ28	φ28	φ35	φ35
Refrigerant Inlet (mm)			φ12.7	φ12.7	φ12.7	φ12.7	φ16	φ16
Weight(KG)			157	157	174	176	191	230

※Remarks: Parameter calibration working condition, ambient temperature 32 °C, superheat 10K.

Unit Model			BTEAF-13M	BTEAF-15M	BTEAF-20M	BTEAF-22M	BTEAF-25M	BTEAF-30M
Power Supply			3P/380V/50Hz					
Apply Temp.			-2℃~5℃					
Comp.	Model		ZB95KQ	ZB114KQ	ZB130KQ	ZB150KQ	ZB190KQ	ZB220KQ
	Max.I(A)		31.0	38.0	52.3	47.0	58.0	76.0
Capacity /Power (KW)	Evap.	-5℃	24.2/9.3	29.0/11.1	32.6/11.7	38.9/14.6	47.6/18.2	59.8/21.9
		-8℃	21.5/9.0	25.7/10.8	28.9/11.3	34.9/14.3	42.6/17.8	53.5/21.3
		-10℃	20.0/8.8	23.8/10.5	26.7/11.1	32.5/13.5	39.6/17.4	49.8/20.7
Fan	Voltage(v)		3P/380V/50Hz					
	Current(A)		1.7	1.9	1.9	3.2	3.2	3.2
	Power(W)		2x414	2x500	2x500	2x800	2x800	2x800
	Rev.(r/min)		1300	1380	1380	1320	1320	1320
Air Inlet (mm)			φ35	φ35	φ42	φ42	φ42	φ42
Refrigerant Inlet (mm)			φ16	φ16	φ22	φ22	φ22	φ22
Weight(KG)			236	240	275	382	415	440

※Remarks: Parameter calibration working condition, ambient temperature 32 °C, superheat 10K.

2) Refrigerant R404A/R507A

Unit Model			BTEBF-06M	BTEBF-07M	BTEBF-08M	BTEBF-09M	BTEBF-10M
Power Supply			3P/380V/50Hz				
Apply Temp.			-5℃~5℃				
Comp.	Model		ZB45KQE	ZB48KQE	ZB58KQE	ZB66KQE	ZB76KQE
	Max.I(A)		16.1	17.0	23.0	24.2	26.9
Capacity /Power (KW)	Evap.	-5℃	11.3/4.9	12.4/5.3	15.0/6.5	16.8/7.3	20.0/8.5
		-8℃	10.2/4.8	11.2/5.2	13.6/6.3	15.2/7.1	18.1/8.3
		-10℃	9.6/4.6	10.6/5.1	12.7/6.2	14.3/6.9	17.0/8.1
		-15℃	8.1/4.4	8.9/4.9	10.6/5.9	12.1/6.6	14.2/7.6
Fan	Voltage(v)		3P/380V/50HZ				
	Current(A)		1.02	1.02	1.02	1.02	1.02
	Power(W)		2x205	2x205	2x205	2x205	2x205
	Rev.(r/min)		1380	1380	1380	1300	1380
Air Inlet (mm)			φ22	φ22	φ28	φ28	φ35
Refrigerant Inlet (mm)			φ12.7	φ12.7	φ12.7	φ12.7	φ16
Weight(KG)			157	157	174	176	191

※Remarks: Parameter calibration working condition, ambient temperature 32 °C, superheat 10K.

Unit Model			BTEBF-13M	BTEBF-15M	BTEBF-20M	BTEBF-22M	BTEBF-25M	BTEBF-30M
Power Supply			3P/380V/50Hz					
Apply Temp.			-5℃~5℃					
Comp.	Model		ZB95KQE	ZB114KQE	ZB130KQE	ZB150KQE	ZB190KQE	ZB220KQE
	Max.I(A)		31.0	38.0	59.6	44.0	58.0	90.0
Capacity /Power (KW)	Evap.	-5℃	24.5/10.9	29.1/13.0	31.7/13.4	38.4/16.7	48.1/21.0	58.8/25.3
		-8℃	22.1/10.7	26.2/12.7	28.6/13.0	34.7/16.3	43.5/20.4	53.1/24.6
		-10℃	20.8/10.4	24.5/12.4	26.7/12.7	32.6/15.9	40.8/20.0	49.8/24.0
		-15℃	17.4/9.9	20.4/11.8	22.3/12.0	27.5/15.1	34.5/19.0	41.9/22.8
Fan	Voltage(v)		3P/380V/50Hz					
	Current(A)		1.7	1.9	1.9	3.2	3.2	3.2
	Power(W)		2x414	2x500	2x500	2x800	2x800	2x800
	Rev.(r/min)		1300	1380	1380	1320	1320	1320
Air Inlet (mm)			φ35	φ35	φ42	φ42	φ42	φ42
Refrigerant Inlet (mm)			φ16	φ16	φ22	φ22	φ22	φ22
Weight(KG)			236	240	275	382	415	440

※Remarks: Parameter calibration working condition, ambient temperature 32 °C, superheat 10K.

BT Series Box-Type Condensing Units

3.3 Low Temperature Unit (With EVI)

Unit Model			BTEBF-06L	BTEBF-07L	BTEBF-08L	BTEBF-09L	BTEBF-10L
Power Supply			3P/380V/50Hz				
Applicable Temperature			-15℃~ -35℃				
Comp.	Model		ZBI 26KQE	ZBI 36KQE	ZBI 39KQE	ZBI 50KQE	ZBI 59KQE
	Maximum Current(A)		13.0	16.6	20.3	25.0	27.0
Evap. A404A R507A	Capacity/ Power(KW)	-20℃	9.7/5.5	12.1/6.7	12.8/8.1	16.5/8.9	20.0/10.8
		-25℃	8.2/5.1	10.4/6.2	11.9/7.5	14.0/8.2	17.0/9.9
		-30℃	7.0/4.7	8.8/5.6	10.1/6.8	11.7/7.5	14.2/9.1
		-35℃	5.9/4.3	7.4/5.1	8.5/6.2	9.9/6.9	12.0/8.4
		-40℃	5.0/4.1	6.1/4.6	7.0/5.6	8.4/6.4	10.3/7.8
	Liquid Temperature	-20℃	10	12.7	12.7	11.5	13.6
		-25℃	5	6.8	6.8	7.5	9.6
		-30℃	0.2	0.7	0.7	3.4	5.7
		-35℃	-5.0	-5.5	-5.5	-2.2	0.2
		-40℃	-10.0	-10.8	-10.8	-12.1	-9.5
Fan	Voltage(v)		3P/380V/50HZ				
	Current(A)		1.02	1.02	1.02	1.02	1.7
	Power(W)		2x205	2x205	2x205	2x205	2x414
	Rev.(r/min)		1380	1380	1380	1380	1300
Air Inlet (mm)			ϕ22	ϕ22	ϕ22	ϕ35	ϕ35
Refrigerant Inlet (mm)			ϕ12.7	ϕ12.7	ϕ12.7	ϕ16	ϕ16
Weight(kg)			157	162	166	194	236

※Remarks: Parameter calibration working condition, ambient temperature 32 °C, superheat 10K.

Unit Model			BTEBF-18L	BTEBF-20L	BTEBF-25L	BTEBF-30L
Power Supply			3P/380V/50Hz			
Applicable Temperature			-15℃~ -35℃			
Comp.	Model		ZBI 68KQE	ZBI 81KQE	ZBI 96KQE	ZBI 122KQE
	Maximum Current(A)		28.3	40.0	52.0	65.4
Evap. A404A R507A	Capacity/ Power(KW)	-20℃	22.6/12.5	26.6/15.2	34.1/18.9	43.0/22.9
		-25℃	19.2/11.6	22.5/14.1	28.9/17.4	36.4/21.2
		-30℃	16.1/10.6	18.9/13.0	24.3/16.1	30.6/19.6
		-35℃	13.5/9.7	15.9/11.8	20.3/14.8	25.5/18.0
		-40℃	11.6/9.0	13.6/11.0	16.7/13.8	21.0/16.9
	Liquid Temperature	-20℃	13.6	13.6	14.4	14.4
		-25℃	9.5	9.6	10.0	10.0
		-30℃	5.6	5.6	5.8	5.8
		-35℃	0.2	0.2	1.8	1.8
		-40℃	-9.6	-9.5	-0.9	-0.9
Fan	Voltage(v)		3P/380V/50HZ			
	Current(A)		1.7	1.9	3.2	3.2
	Power(W)		2x414	2x500	2x800	2x800
	Rev.(r/min)		1300	1380	1320	1320
Air Inlet (mm)			ϕ35	ϕ35	ϕ42	ϕ42
Refrigerant Inlet (mm)			ϕ16	ϕ22	ϕ22	ϕ22
Weight(kg)			239	244	425	436

※Remarks: Parameter calibration working condition, ambient temperature 32 °C, superheat 10K.

V. Unit Configuration

1. Medium Temperature and High Temperature Unit

Components	Unit Model BT											
	06H 07M	07H 07M	08H 08M	09H 09M	10H 10M	12H 12M	13H 13M	15H 15M	20H 20M	22H 22M	25M	30M
Scroll Compressor	●	●	●	●	●	●	●	●	●	●	●	●
Suction and Exhaust Valve of The Compressor	/	/	△	△	△	△	△	△	△	△	△	△
Oil Heating Band	●	●	●	●	●	●	●	●	●	●	●	●
Exhaust Damping Pipe	△	△	△	△	△	△	△	△	●	●	●	●
Oil Separator	△	△	△	△	△	△	△	△	●	●	●	●
Condenser (Hydrophilic Aluminum Foil)	●	●	●	●	●	●	●	●	●	●	●	●
External Rotor Fan	●	●	●	●	●	●	●	●	●	●	●	●
Reservoir	●	●	●	●	●	●	●	●	●	●	●	●
Reservoir Outlet Shut-off Valve	●	●	●	●	●	●	●	●	●	●	●	●
Dry Filter	●	●	●	●	●	●	●	●	●	●	●	●
Sight Glasses	●	●	●	●	●	●	●	●	●	●	●	●
High/low-pressure Protection	●	●	●	●	●	●	●	●	●	●	●	●
High/low-pressure Gauge	●	●	●	●	●	●	●	●	●	●	●	●
Refrigerant Solenoid Valve	△	△	△	△	△	△	△	△	△	△	△	△
High Pressure Control (fan Control)	△	△	△	△	△	△	△	△	△	△	△	△
Low Pressure Control (vent Shutdown)	△	△	△	△	△	△	△	△	△	△	△	△

● Standard Configuration; △ Optional, additional cost required

2. Low Temperature Units

Components	Unit Model BT								
	BTEAF-06L	BTEAF-08L	BTEAF-10L	BTEAF-12L	BTEAF-15L	BTEAF-18L	BTEAF-20L	BTEAF-25L	BTEAF-30L
Scroll Compressor	●	●	●	●	●	●	●	●	●
Suction and Exhaust Valve of The Compressor	●	●	●	●	●	●	●	●	●
Oil Heating Band	●	●	●	●	●	●	●	●	●
Exhaust Damping Pipe	△	△	△	△	△	△	△	●	●
Oil Separator	△	△	△	△	△	△	△	●	●
Condenser (Hydrophilic Aluminum Foil)	●	●	●	●	●	●	●	●	●
External Rotor Fan	●	●	●	●	●	●	●	●	●
Reservoir	●	●	●	●	●	●	●	●	●
Reservoir Outlet Shut-off Valve	●	●	●	●	●	●	●	●	●
Dry Filter	●	●	●	●	●	●	●	●	●
Sight Glasses	●	●	●	●	●	●	●	●	●
High/low-pressure Protection	●	●	●	●	●	●	●	●	●
High/low-pressure Gauge	●	●	●	●	●	●	●	●	●
Refrigerant Solenoid Valve	△	△	△	△	△	△	△	△	△
High Pressure Control (fan Control)	△	△	△	△	△	△	△	△	△
Low Pressure Control (vent Shutdown)	△	△	△	△	△	△	△	△	△

● Standard Configuration; △ Optional, additional cost required

BV
Series

BV Series Box-Type Condensing Units

Ⅰ. Product Overview

The BV series box-type condensing units are developed for cold store applications and offer the following features:

1. Cabin type structure, compact structure and good appearance
2. Scientific designs, steady air flow, fully exert capacity of the unit
3. Rational performance design, high energy efficiency
4. Convenient design for maintain (front board can be easily taken down)
5. Partner with our material supplier, to insure delivery time and quality of products
6. Various brand of compressor for your choice
7. Fits different refrigerant: R134a・R404A・R507-R22

Ⅱ. Model Description

BV	G	A	F	–	06	H

- H: Applicable Temperature Code
  H: High Temperature, M: Medium Temperature
  L: Low Temperature
- 06: Nominal Power Of Compressor (HP)
- F: Cooling Form: F: Air-cooled, S: Water-cooled
- A: Refrigerant Code, A: R22, B: R404A/R507A
- G: Compressor Brand Code, B: Bitzer, E: Emerson
- BV: Product Series

BV Series Box-Type Condensing Units

III. Main Technical Parameters

1. High Temperature Unit (Emerson)

Unit Model			BVGAF-10H	BVGAF-12H	BVGAF-13H	BVGAF-15H
Condenser	Model		KGVT027-L2/A	KGVT039-L2/A	KGVT042-L2/A	KGVT047-L2/A
	Fan Mot. Power	W	250x2	600x2	600x2	780x2
	Fan Mot. Amper	A	0.6x2	1.2x2	1.2x2	1.6x2
Comp.Rated Input Currrent		A	118	118	140	174
Comp.Max Operating Current		A	26.9	31	31	38
Overall Size	(L)A	mm	1860	2075	2060	2150
	(W)B	mm	785	785	875	875
	(H)C	mm	850	850	940	940
Physical Size	D	mm	1695	1695	1895	1985
	E	mm	600	600	650	650
Connecting Tube	Suction	ϕ (in)	35	35	35	35
	Liquid	ϕ (in)	16	16	16	22
Power			380V-3PH-50Hz			
Power Of Crankcase Heater			90	90	90	90
Weight(kg)			246	267	291	301

Rated input power and current is the number under ARI working condition

2. Medium Temperature (Bitzer)

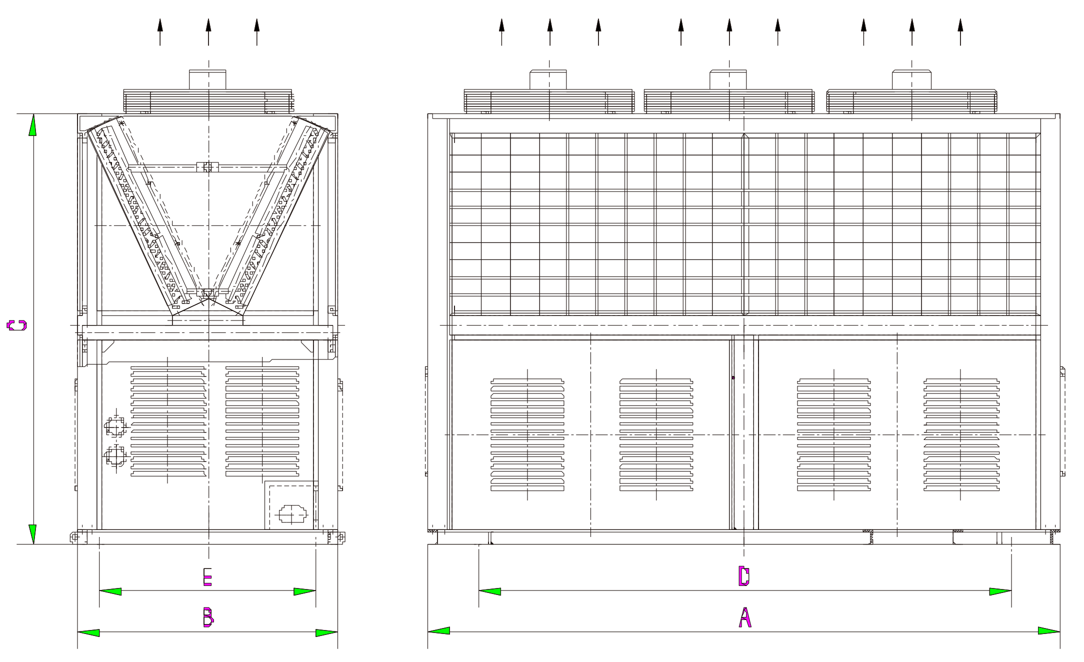
Unit Model			BVBAF-10M	BVBAF-12M	BVBAF-15M	BVBAF-20M	BVBAF-25M	BVBAF-30M
Condenser	Model		KGVK027-L2/A	KGVK039-L2/A	KGVK047-L2/A	KGVK056-L2/A	KGVK074-L2/A	KGVK085-L2/A
	Fan Mot Power	W	250x2	250x2	600x2	600x2	780x2	780x2
	Fan Mot Amper	A	0.6x2	0.6x2	0.6x2	1.2x2	1.2x2	1.6x2
Comp.Rated Input Currrent		A	99	113	132	158	193	220
Comp.Max Operating Current		A	21	24	31	37	45	53
Overall Size	(L)A	mm	1358	1558	1654	1744	2364	2564
	(W)B	mm	993	993	1018	1018	1018	1018
	(H)C	mm	1465	1465	1545	1545	1545	1545
Physical Size	D	mm	1078	1278	1374	1464	2084	2284
	E	mm	834	834	919	919	919	919
Connecting Tube	Suction	ϕ (in)	28	35	42	42	54	54
	Liquid	ϕ (in)	16	16	22	22	22	22
Power			380V-3PH-50Hz					
Power Of Crankcase Heater			0-120	0-120	0-120	0-120	140	140
Weight(kg)			450	470	505	550	690	720

Rated input power and current is the number under ARI working condition

3. Low Temperature Unit (Bitzer)

Unit Model			BVBAF-12L	BVBAF-15L	BVBAF-20L	BVBAF-25L	BVBAF-30L
Condenser	Model		KGVK027-L2/A	KGVK039-L2/A	KGVK047-L2/A	KGVK056-L2/A	KGVK074-L2/A
	Fan Mot Power	W	250x2	600x2	780x2	800x2	780x3
	Fan Mot Amper	A	0.6x2	1.2x2	1.6x2	1.6x2	1.6x3
Comp.Rated Input Currrent		A	113	132	158	193	220
Comp.Max Operating Current		A	24	31	37	45	53
Overall Size	(L)A	mm	1358	1558	1654	1744	2364
	(W)B	mm	933	933	1018	1018	1018
	(H)C	mm	1465	1465	1545	1545	1545
Physical Size	D	mm	1078	1278	1374	1464	2084
	E	mm	834	834	919	919	919
Connecting Tube	Suction	ϕ (in)	35	42	54	54	54
	Liquid	ϕ (in)	22	22	22	22	22
Power			380V-3PH-50Hz				
Power Of Crankcase Heater			0-120	140	140	140	140
Weight(kg)			450	510	580	630	750

Rated input power and current is the number under ARI working condition



CV
Series

CV Series Scroll Compressor Air-Cooled Condensing Units

Ⅰ. Product Overview

The CV Series air-cooled condensing units offer the following features

1. High-quality and reliable Emerson ZB or ZFL series fully enclosed scroll compressors
2. Designed for high, medium, and low temperature applications
   - High-temperature units meet the needs of cold storage at 5~15°C
   - Medium-temperature units meet the needs of cold storage at -5~5°C
   - Low-temperature units meet the needs of cold storage at-15 ~ -35°C
3. Compact structure and easy operation and maintenance. The air-cooled condenser, compressor, and various accessories are installed on an integrated frame
4. High-efficiency and low-noise external rotor fan
5. Convenient wiring. The wiring of electrical components (except the com-pressor) is connected to the terminal block built into the unit
6. Suitable for R22,R404A, R507A, R448A, and R449A refrigerants

Ⅱ. Model Description

CV	E	A	F	–	02	H

- H: Applicable Temperature Code — H: High Temperature, M: Medium Temperature, L: Low Temperature
- 02: Nominal Power Of Compressor (HP)
- F: Cooling Form: F: Air-cooled, S: Water-cooled
- A: Refrigerant Code, A: R22，B：R404A/R507A
- E: Compressor Brand Code, E: Emerson
- CV: Product Series

III. Main Technical Parameters

1. High Temperature Units

Unit Model				CVEBF-02H	CVEBF-03H	CVEBF-04H	CVEBF-05H	CVEBF-06H	CVEBF-07H	CVEBF-08H
Power Supply				3P/380V/50Hz						
Apply Temp.				5℃～15℃						
Comp.	Model			ZB15KQE	ZB21KQE	ZB29KQE	ZB38KQE	ZB45KQE	ZB48KQE	ZB58KQE
	Max.I (A)			6	8	11	13.5	16.1	17	23
Capacity /Power (KW)	Evap.	R22	10℃	6.7/1.6	9.8/2.4	13.1/3.1	16.3/3.9	19.6/4.5	21.6/4.9	26.1/5.8
			5℃	5.8/1.6	8.4/2.3	11.2/3.0	14.0/3.8	16.9/4.3	18.6/4.8	22.3/5.6
			0℃	4.9/1.5	7.1/2.3	9.6/2.9	11.9/3.7	14.4/4.2	15.9/4.7	18.9/5.5
		R404A R507A	10℃	6.5/1.8	9.7/2.6	13.2/3.4	16.7/4.3	19.6/4.8	21.5/5.3	25.9/6.6
			5℃	5.6/1.7	8.4/2.5	11.4/3.3	14.4/4.2	16.9/4.8	18.6/5.3	22.4/6.5
			0℃	4.8/1.7	7.2/2.5	9.8/3.3	12.4/4.1	14.5/4.7	15.9/5.2	19.2/6.4
Fan	Voltage (V)			3P/380V/50Hz						
	Current (A)			0.92	0.92	0.92	1.2	1.2	2.2	2.2
	Power (W)			220×2	220×2	220×2	290×2	290×2	548×2	548×2
	Rev. (r/min)			1362	1362	1362	1328	1328	1381	1381
Suction Line(mm)				Φ19	Φ19	Φ22	Φ22	Φ22	Φ22	Φ28
Liquid Line(mm)				Φ9.52	Φ9.52	Φ12.7	Φ12.7	Φ12.7	Φ12.7	Φ16

※Remarks: The parameters are calibrated as cooling water inlet temperature 30 °C, condensation temperature 40 °C, superheat 10K.

Unit Model				CVEBF-10H	CVEBF-13H	CVEBF-15H	CVEBF-20H	CVEBF-22H	CVEBF-25H	CVEBF-30H
Power Supply				3P/380V/50Hz						
Apply Temp.				5℃～15℃						
Comp.	Model			ZB76KQE	ZB95KQE	ZB114KQE	ZB130KQE	ZB150KQE	ZB190KQE	ZB220KQE
	Max.I (A)			26.9	31	38	33.1	38.3	49.1	60
Capacity /Power (KW)	Evap.	R22	10℃	34.4/7.7	42.1/9.8	50.7/11.7	56.2/12.4	66.1/15.4	82.9/19.2	101.0/23.5
			5℃	29.7/7.4	36.2/9.5	43.5/11.2	48.4/12.0	56.7/14.9	70.7/18.5	87.2/22.6
			0℃	25.3/7.2	30.7/9.2	36.8/10.9	41.2/11.6	48.4/14.5	59.8/17.9	74.7/21.8
		R404A R507A	10℃	34.2/8.8	42.0/11.3	50.8/13.3	54.6/13.9	66.2/17.9	82.9/22.5	102.5/27.1
			5℃	29.7/8.6	36.3/11.1	43.8/13.0	47.3/13.6	57.1/17.2	71.5/21.6	88.3/26.0
			0℃	25.5/8.4	31.3/10.8	37.5/12.7	40.6/13.2	49.0/16.6	61.3/20.8	75.7/25.0
Fan	Voltage (V)			3P/380V/50Hz						
	Current (A)			2.4	2.4	4.4	4.4	4.4	6.6	6.6
	Power (W)			290×4	290×4	548×4	548×4	548×4	548×6	548×6
	Rev. (r/min)			1328	1328	1381	1381	1381	1381	1381
Suction Line(mm)				Φ35	Φ35	Φ35	Φ42	Φ42	Φ42	Φ42
Liquid Line(mm)				Φ16	Φ16	Φ16	Φ22	Φ22	Φ22	Φ22

※Remarks: The parameters are calibrated as cooling water inlet temperature 30 °C, condensation temperature 40 °C, superheat 10K.

2. Medium Temperature Units

Unit Model				CVEBF-02M	CVEBF-03M	CVEBF-04M	CVEBF-05M	CVEBF-06M	CVEBF-07M	CVEBF-08M
Power Supply				3P/380V/50Hz						
Apply Temp.				-5℃～5℃						
Comp.	Model			ZB15KQE	ZB21KQE	ZB29KQE	ZB38KQE	ZB45KQE	ZB48KQE	ZB58KQE
	Max.I (A)			6	8	11	13.5	16.1	17	23
Capacity /Power (KW)	Evap.	R22	-5℃	4.1/1.5	5.9/2.2	8.0/2.9	9.9/3.6	12.0/4.2	13.2/4.6	15.4/4.5
			-8℃	3.6/1.5	5.3/2.2	7.1/2.8	8.8/3.6	10.7/4.2	11.7/4.6	13.5/5.5
			-10℃	3.4/1.5	4.9/2.2	6.6/2.8	8.2/3.5	9.9/4.1	11.0/4.5	12.5/5.3
		R404A R507A	-5℃	3.9/1.8	5.9/2.5	8.1/3.3	10.2/4.2	11.9/4.7	13.1/5.2	15.8/6.4
			-8℃	3.5/1.8	5.3/2.5	7.1/3.3	9.0/4.2	10.6/4.7	11.6/5.2	14.0/6.3
			-10℃	3.3/1.8	4.9/2.5	6.7/3.3	8.5/4.1	9.9/4.6	10.9/5.1	13.1/6.2
Fan	Voltage (V)			3P/380V/50Hz						
	Current (A)			0.66	0.66	0.92	0.92	0.92	1.2	2.2
	Power (W)			136×2	136×2	220×2	220×2	220×2	290×2	548×2
	Rev. (r/min)			1373	1362	1362	1362	1362	1328	1381
Suction Line(mm)				Φ19	Φ19	Φ22	Φ22	Φ22	Φ22	Φ28
Liquid Line(mm)				Φ9.52	Φ9.52	Φ12.7	Φ12.7	Φ12.7	Φ12.7	Φ16

※Remarks: The parameters are calibrated as cooling water inlet temperature 30 °C, condensation temperature 40 °C, superheat 10K.

Unit Model				CVEBF-10M	CVEBF-13M	CVEBF-15M	CVEBF-20M	CVEBF-22M	CVEBF-25M	CVEBF-30M
Power Supply				3P/380V/50Hz						
Apply Temp.				-5℃～5℃						
Comp.	Model			ZB76KQE	ZB95KQE	ZB114KQE	ZB130KQE	ZB150KQE	ZB190KQE	ZB220KQE
	Max.I (A)			26.9	31	38	33.1	38.3	49.1	60
Capacity /Power (KW)	Evap.	R22	-5℃	21.0/7.1	25.1/9.1	30.0/10.8	33.8/11.4	40.1/14.3	49.1/17.8	62.2/21.4
			-8℃	18.6/7.0	21.9/9.0	26.2/10.7	29.7/11.3	35.6/14.1	43.3/17.6	55.2/21.2
			-10℃	17.4/6.9	20.3/8.8	24.2/10.5	27.5/11.1	33.1/13.9	40.3/17.4	51.4/20.7
		R404A R507A	-5℃	21.1/8.3	25.8/10.7	30.7/12.7	33.5/13.1	40.4/16.4	50.6/20.6	62.5/24.8
			-8℃	18.7/8.2	22.9/10.6	27.1/12.5	29.8/12.9	35.9/16.2	44.9/20.4	55.5/24.6
			-10℃	17.5/8.1	21.5/10.4	25.3/12.3	27.9/12.7	33.7/15.9	42.2/20.0	52.1/24.0
Fan	Voltage (V)			3P/380V/50Hz						
	Current (A)			2.2	2.4	2.4	4.4	4.4	4.4	4.4
	Power (W)			548×2	290×4	290×4	548×4	548×4	548×4	548×4
	Rev. (r/min)			1381	1328	1328	1381	1381	1381	1381
Suction Line(mm)				Φ35	Φ35	Φ35	Φ42	Φ42	Φ42	Φ42
Liquid Line(mm)				Φ16	Φ16	Φ16	Φ22	Φ22	Φ22	Φ22

※Remarks: The parameters are calibrated as cooling water inlet temperature 30 °C, condensation temperature 40 °C, superheat 10K.

CV Series Scroll Compressor Air-Cooled Condensing Units

3. Low Temperature Unit (With EVI Jet Enthalpy)

Unit Model				CVEBF-06L	CVEBF-08L	CVEBF-10L	CVEBF-12L	CVEBF-15L
Power Supply				3P/380V/50Hz				
Apply Temp.				-15℃~-35℃				
Comp.	Model			ZFI26KQE	ZFI36KQE	ZFI39KQE	ZFI50KQE	ZFI59KQE
	Max.I (A)			13	16.6	20.3	25	27
Capacity /Power (KW)	Evap.	R404A R507A	-20℃	9.9/5.1	12.4/6.3	14.2/7.6	17.0/8.3	20.6/10.1
			-25℃	8.4/4.8	10.6/5.8	12.1/7.1	14.3/7.7	17.3/9.4
			-30℃	7.1/4.5	9.0/5.3	10.2/6.5	11.9/7.2	14.5/8.7
			-35℃	6.0/4.2	7.5/4.9	8.6/6.0	10.0/6.7	12.1/8.1
			-40℃	5.0/4.0	6.2/4.5	7.1/5.5	8.5/6.3	10.3/7.7
Fan	Voltage (V)			3P/380V/50Hz				
	Current (A)			0.92	2.2	2.2	2.2	2.4
	Power (W)			220×2	548×2	548×2	548×2	290×4
	Rev. (r/min)			1362	1381	1381	1381	1328
Suction Line(mm)				Φ22	Φ22	Φ22	Φ35	Φ35
Liquid Line(mm)				Φ12.7	Φ12.7	Φ12.7	Φ16	Φ16

※Remarks: The parameters are calibrated as cooling water inlet temperature 30 ℃, condensation temperature 40 ℃, superheat 10K.

Unit Model				CVEBF-18L	CVEBF-20L	CVEBF-25L	CVEBF-30L	CVEBF-40L
Power Supply				3P/380V/50Hz				
Apply Temp.				-15℃~-35℃				
Comp.	Model			ZFI68KQE	ZFI81KQE	ZFI96KQE	ZFI122KQE	ZFI140KQE
	Max.I (A)			28.3	40	52	65.4	67.8
Capacity /Power (KW)	Evap.	R404A R507A	-20℃	23.3/11.8	27.3/14.3	35.1/17.5	44.2/21.3	48.5/23.3
			-25℃	19.6/11.0	23.0/13.3	29.5/16.5	37.2/20.0	40.7/21.8
			-30℃	16.3/10.2	19.2/12.4	24.7/15.3	31.1/18.6	34.0/20.3
			-35℃	13.7/9.4	16.1/11.5	20.5/14.3	25.8/17.5	28.2/19.1
			-40℃	11.6/8.9	13.7/10.9	16.7/13.7	21.0/16.7	23.0/18.2
	Voltage (V)			3P/380V/50Hz				
	Current (A)			2.4	4.4	4.4	4.4	4.4
	Power (W)			290×4	548×4	548×4	548×4	548×4
	Rev. (r/min)			1328	1381	1381	1381	1381
Suction Line(mm)				Φ35	Φ35	Φ42	Φ42	Φ42
Liquid Line(mm)				Φ16	Φ22	Φ22	Φ22	Φ22

※Remarks: The parameters are calibrated as cooling water inlet temperature 30 ℃, condensation temperature 40 ℃, superheat 10K.

IV. Configuration Table of Units

Medium and High Temperature Units

Parts	CVEBF													
	02H 02M	03H 03M	04H 04M	05H 05M	06H 06M	07H 07M	08H 08M	10H 10M	13H 13M	15H 15M	20H 20M	22H 22M	25H 25M	30H 30M
Compressor	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Compressor Suction and Discharge Valves	/	/	/	/	/	/	△	△	△	△	△	△	△	△
Oil Heating Belt	△	△	△	△	△	△	△	△	△	△	△	△	△	△
Exhaust Damping Pipe	△	△	△	△	△	△	△	△	△	△	●	●	●	●
Oil Separator	△	△	△	△	△	△	△	△	△	△	●	●	●	●
Condenser	●	●	●	●	●	●	●	●	●	●	●	●	●	●
AC motor	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Liquid Receiver	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Liquid Receiver Outlet Shut-off Valve	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Drying Filter	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Liquid Supply Solenoid Valve	●	●	●	●	●	●	●	●	●	●	●	●	●	●
High/Low-Pressure Protection	●	●	●	●	●	●	●	●	●	●	●	●	●	●
High/low-Pressure Gauges	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Gas-Liquid Separator	△	△	△	△	△	△	△	△	△	△	△	△	△	△
Suction Damping Pipe	△	△	△	△	△	△	△	△	△	△	△	△	△	△
High-Pressure Pressure Control (Fan Control)	△	△	△	△	△	△	△	△	△	△	△	△	△	△
Low-Pressure Pressure Control (Negative Pressure Shutdown)	△	△	△	△	△	△	△	△	△	△	△	△	△	△

● Standard Configuration; △ Optional, additional cost required

Low Temperature Units

Parts	CVEBF									
	06L	08L	10L	12L	15L	18L	20L	25L	30L	40L
Compressor	●	●	●	●	●	●	●	●	●	●
Compressor Suction and Discharge Valves	●	●	●	●	●	●	●	●	●	●
Oil Heating Belt	●	●	●	●	●	●	●	●	●	●
Exhaust Damping Pipe	△	△	△	△	△	△	△	●	●	●
Liquid Receiver	●	●	●	●	●	●	●	●	●	●
Condenser	●	●	●	●	●	●	●	●	●	●
AC motor	●	●	●	●	●	●	●	●	●	●
Liquid Receiver	●	●	●	●	●	●	●	●	●	●
Liquid Receiver Outlet Shut-off Valve	●	●	●	●	●	●	●	●	●	●
Drying Filter	●	●	●	●	●	●	●	●	●	●
Liquid Supply Solenoid Valve	●	●	●	●	●	●	●	●	●	●
High/Low-Pressure Protection	●	●	●	●	●	●	●	●	●	●
High/low-Pressure Gauges	●	●	●	●	●	●	●	●	●	●
Gas-Liquid Separator	●	●	●	●	●	●	●	●	●	●
Suction Damping Pipe	△	△	△	△	△	△	△	△	△	△
High-Pressure Pressure Control (Fan Control)	△	△	△	△	△	△	△	△	△	△
Low-Pressure Pressure Control (Negative Pressure Shutdown)	△	△	△	△	△	△	△	△	△	△

● Standard Configuration; △ Optional, additional cost required

CV
Series

CV Series Scroll Compressor Water-Cooled Condensing Units

Ⅰ. Product Overview

The CV series water-cooled condensing units offer the following features

1. High-quality and reliable Emerson ZB or ZFL series fully enclosed scroll compressors
2. Designed for high, medium, and low temperature applications
   - High-temperature units meet the needs of cold storage at 5~15°C
   - Medium-temperature units meet the needs of cold storage at -5~5°C
   - Low-temperature units meet the needs of cold storage at-15 ~ -35°C
3. High-efficiency shell-and-tube water-cooled condenser with excellent cooling effect and low condensing temperature
4. Compact structure and easy operation and maintenance. The water-cooled condenser, compressor, and various accessories are installed on an integrated frame
5. Convenient wiring. The wiring of electrical components (except the compressor) is connected to the terminal block built into the unit
6. Suitable for R22,R404A, R507A, R448A, and R449A refrigerants

Ⅱ. Model Description

CV	E	B	S	–	06	H

- H — Applicable Temperature Code
  H: High Temperature, M: Medium Temperature
  L: Low Temperature
- 06 — Nominal Power Of Compressor (HP)
- S — Cooling Form: F: Air-cooled, S: Water-cooled
- B — Refrigerant Code, A: R22, B：R404A/R507A
- E — Compressor Brand Code, E: Emerson
- CV — Product Series

III. Main Technical Parameters

1. High Temperature Units

Unit Model				CVEBS-05H	CVEBS-06H	CVEBS-07H	CVEBS-08H	CVEBS-10H	CVEAS-12H
Power Supply				3P/380V/50Hz					
Apply Temp.				5℃～15℃					
Comp.	Model			ZB38KQE	ZB45KQE	ZB48KQE	ZB58KQE	ZB76KQE	ZB88KQ
	Max.I (A)			13.5	16.1	17	23	26.9	31
Capacity/ Power(KW)	Evap.	R22	10℃	17.8/3.4	21.4/3.9	23.6/4.2	28.4/5.1	37.4/6.7	42.6/7.6
			5℃	15.2/3.3	18.3/3.8	20.1/4.2	24.1/5.0	31.9/6.5	36.7/7.4
			0℃	12.8/3.3	15.5/3.8	17.0/4.2	20.2/4.9	27.0/6.4	31.1/7.3
		R404A R507A	10℃	19.3/3.7	22.6/4.2	24.9/4.6	29.8/5.8	39.5/7.6	
			5℃	16.6/3.7	19.5/4.2	21.4/4.6	25.7/5.8	34.1/7.6	
			0℃	13.9/3.7	16.2/4.2	17.9/4.6	21.4/5.8	28.5/7.6	
Condenser	Water Flow		m^3/h	3.5	4.1	4.5	5.4	7.2	7.6
	Water Connect		inch	Rc1	Rc1	Rc1-1/2	Rc1-1/2	Rc1-1/2	Rc2
Suction Line(mm)				Φ22	Φ22	Φ22	Φ28	Φ35	Φ35
Liquid Line(mm)				Φ12.7	Φ12.7	Φ12.7	Φ16	Φ16	Φ16

※Parameter Calibration Conditions: Ambient temperature of 32℃, superheat of 10K.

Unit Model				CVEBS-13H	CVEBS-15H	CVEBS-20H	CVEBS-22H	CVEBS-25H	CVEBS-30H
Power Supply				3P/380V/50Hz					
Apply Temp.				5℃～15℃					
Comp.	Model			ZB95KQE	ZB114KQE	ZB130KQE	ZB150KQE	ZB190KQE	ZB220KQE
	Max.I (A)			31	38	33.1	38.3	49.1	60
Capacity/ Power(KW)	Evap.	R22	10℃	45.9/8.5	55.4/10.2	61.1/10.9	71.7/13.5	90.1/16.9	109.0/20.7
			5℃	39.2/8.4	47.2/10.0	52.3/10.7	60.9/13.3	76.3/16.4	93.5/20.1
			0℃	33.1/8.3	39.8/9.8	44.1/10.5	51.5/13.1	64.0/16.0	79.6/19.7
		R404A R507A	10℃	48.5/9.8	58.5/11.7	62.6/12.1	75.8/16.0	94.9/20.1	117.0/24.3
			5℃	41.8/9.8	50.4/11.6	54.0/12.1	65.4/15.4	81.8/19.4	101.0/23.3
			0℃	34.9/9.7	42.0/11.5	45.0/12.0	54.5/15.0	68.2/18.9	84.3/22.7
Condenser	Water Flow		m^3/h	8.9	10.7	11.4	13.9	17.4	21.4
	Water Connect		inch	Rc2	Rc2	Rc2-1/2	Rc2-1/2	Rc2-1/2	Rc2-1/2
Suction Line(mm)				Φ35	Φ35	Φ42	Φ42	Φ42	Φ42
Liquid Line(mm)				Φ16	Φ16	Φ22	Φ22	Φ22	Φ22

※Parameter Calibration Conditions: Ambient temperature of 32℃, superheat of 10K.

2. Medium Temperature Units

Unit Model				CVEBS-05M	CVEBS-06M	CVEBS-07M	CVEBS-08M	CVEBS-10M	CVEAS-12M
Power Supply				3P/380V/50Hz					
Apply Temp.				5℃～15℃					
Comp.	Model			ZB38KQE	ZB45KQE	ZB48KQE	ZB58KQE	ZB76KQE	ZB88KQ
	Max.I (A)			13.5	16.1	17	23	26.9	31
Capacity/ Power(KW)	Evap.	R22	-5℃	10.7/3.2	12.9/3.8	14.2/4.1	16.6/4.9	22.4/6.4	25.8/7.2
			-8℃	9.5/3.2	11.6/3.8	12.7/4.1	14.8/4.9	20.1/6.3	23.1/7.2
			-10℃	8.8/3.2	10.7/3.7	11.8/4.1	13.5/4.9	18.6/6.3	21.2/7.2
		R404A R507A	-5℃	11.5/3.7	13.4/4.2	14.8/4.6	17.7/5.7	23.6/7.5	
			-8℃	10.3/3.7	12.1/4.2	13.2/4.6	16.0/5.7	21.2/7.4	
			-10℃	9.5/3.7	11.1/4.2	12.2/4.6	14.7/5.7	19.6/7.4	
Condenser	Water Flow		m^3/h	3.3	3.8	4.2	5	6.7	7.1
	Water Connect		inch	Rc1	Rc1	Rc1-1/2	Rc1-1/2	Rc1-1/2	Rc1-1/2
Suction Line(mm)				Φ22	Φ22	Φ22	Φ28	Φ35	Φ35
Liquid Line(mm)				Φ12.7	Φ12.7	Φ12.7	Φ16	Φ16	Φ16

※Parameter Calibration Conditions: Ambient temperature of 32℃, superheat of 10K.

Unit Model				CVEBS-13M	CVEBS-15M	CVEBS-20M	CVEBS-22M	CVEBS-25M	CVEBS-30M
Power Supply				3P/380V/50Hz					
Apply Temp.				5℃～15℃					
Comp.	Model			ZB95KQE	ZB114KQE	ZB130KQE	ZB150KQE	ZB190KQE	ZB220KQE
	Max.I (A)			31	38	33.1	38.3	49.1	60
Capacity/ Power(KW)	Evap.	R22	-5℃	27.4/8.2	32.7/9.7	36.4/10.3	42.9/13.0	52.8/15.9	66.5/19.4
			-8℃	24.4/8.1	29.0/9.7	32.4/10.2	38.6/12.9	47.1/15.9	59.8/19.2
			-10℃	22.3/8.1	26.6/9.6	29.7/10.2	35.6/12.8	43.4/15.9	55.3/19.1
		R404A R507A	-5℃	29.0/9.6	34.6/11.4	37.3/11.9	45.1/14.8	56.5/18.5	69.8/22.3
			-8℃	26.2/9.5	31.1/11.3	33.6/11.8	40.7/14.7	51.0/18.4	62.9/22.2
			-10℃	24.2/9.5	28.6/11.3	31.0/11.7	37.6/14.6	47.1/18.4	58.1/22.1
Condenser	Water Flow		m^3/h	8.3	9.9	10.6	12.9	16.1	19.8
	Water Connect		inch	Rc2	Rc2	Rc2-1/2	Rc2-1/2	Rc2-1/2	Rc2-1/2
Suction Line(mm)				Φ35	Φ35	Φ42	Φ42	Φ42	Φ42
Liquid Line(mm)				Φ16	Φ16	Φ22	Φ22	Φ22	Φ22

※Parameter Calibration Conditions: Ambient temperature of 32℃, superheat of 10K.

CV Series Scroll Compressor Water-Cooled Condensing Units

3. Low-Temperature Unit (With EVI Jet Enthalpy)

Unit Model				CVEBS-06L	CVEBS-08L	CVEBS-10L	CVEBS-12L	CVEBS-15L
Power Supply				3P/380V/50Hz				
Apply Temp.				-15℃~-35℃				
Comp.	Model			ZFI26KQE	ZFI36KQE	ZFI39KQE	ZFI50KQE	ZFI59KQE
	Max.I (A)			13	16.6	20.3	25	27
Capacity/ Power (KW)	Evap.	R404A R507A	-20℃	10.2/4.6	12.9/5.7	14.7/6.9	17.5/7.6	21.2/9.2
			-25℃	8.6/4.5	10.9/5.4	12.5/6.6	14.6/7.2	17.7/8.8
			-30℃	7.2/4.3	9.1/5.1	10.4/6.2	12.1/6.9	14.7/8.4
			-35℃	6.0/4.1	7.5/4.8	8.6/5.8	10.1/6.5	12.2/8.0
			-40℃	5.0/4.0	6.2/4.5	7.1/5.5	8.5/6.3	10.3/7.7
Condenser	Water Flow		m^3/h	3.8	4.7	5.5	6.2	7.6
	Water Connect		inch	Rc1	Rc1-1/2	Rc1-1/2	Rc1-1/2	Rc2
Suction Line(mm)				Φ22	Φ22	Φ22	Φ35	Φ35
Liquid Line(mm)				Φ12.7	Φ12.7	Φ12.7	Φ16	Φ16

※Parameter Calibration Conditions: Ambient temperature of 32℃, superheat of 10K.

Unit Model				CVEBS-18L	CVEBS-20L	CVEBS-25L	CVEBS-30L	CVEBS-40L
Power Supply				3P/380V/50Hz				
Apply Temp.				-15℃~-35℃				
Comp.	Model			ZFI68KQE	ZFI81KQE	ZFI96KQE	ZFI122KQE	ZFI140KQE
	Max.I (A)			28.3	40	52	65.4	67.8
Capacity/ Power (KW)	Evap.	R404A R507A	-20℃	24.0/10.8	28.1/13.1	36.2/15.8	45.6/19.2	50.2/21.0
			-25℃	20.0/10.2	23.5/12.5	30.1/15.2	37.9/18.5	41.6/20.2
			-30℃	16.6/9.8	19.5/11.9	25.0/14.6	31.4/17.8	34.4/19.5
			-35℃	13.8/9.2	16.2/11.2	20.6/14.0	26.0/17.1	28.4/18.7
			-40℃	11.6/8.9	13.7/10.9	16.7/13.7	21.0/16.7	23.0/18.2
Condenser	Water Flow		m^3/h	8.7	10.3	13	16.2	17.7
	Water Connect		inch	Rc2	Rc2	Rc2-1/2	Rc2-1/2	Rc2-1/2
Suction Line(mm)				Φ35	Φ35	Φ42	Φ42	Φ42
Liquid Line(mm)				Φ16	Φ22	Φ22	Φ22	Φ22

※Parameter Calibration Conditions: Ambient temperature of 32℃, superheat of 10K.

IV. Configuration Table of Units

Medium and High Temperature Units

Parts	CVEBS										
	05H 05M	06H 06M	07H 07M	08H 08M	10H 10M	13H 13M	15H 15M	20H 20M	22H 22M	25H 25M	30H 30M
Compressor	●	●	●	●	●	●	●	●	●	●	●
Compressor Suction and Discharge Valves	/	/	/	△	△	△	△	△	△	△	△
Oil Heating Belt	△	△	△	△	△	△	△	△	△	△	△
Exhaust Damping Pipe	△	△	△	△	△	△	△	●	●	●	●
Oil Separator	△	△	△	△	△	△	△	●	●	●	●
Water-Cooled Condenser	●	●	●	●	●	●	●	●	●	●	●
Drying Filter	●	●	●	●	●	●	●	●	●	●	●
Liquid Supply Solenoid Valve	●	●	●	●	●	●	●	●	●	●	●
High/Low-Pressure Protection	●	●	●	●	●	●	●	●	●	●	●
High/Low-Pressure Gauges	●	●	●	●	●	●	●	●	●	●	●
Gas-Liquid Separator	△	△	△	△	△	△	△	△	△	△	△
Suction Damping Pipe	△	△	△	△	△	△	△	△	△	△	△
Low-Pressure Pressure Control(Nlegative Pressure Shutdown)	△	△	△	△	△	△	△	△	△	△	△

● Standard Configuration; △ Optional, additional cost required

Low Temperature Units

Parts	CVEBS									
	06L	08L	10L	12L	15L	18L	20L	25L	30L	40L
Compressor	●	●	●	●	●	●	●	●	●	●
Compressor Suction and Discharge Valves	●	●	●	●	●	●	●	●	●	●
Oil Heating Belt	●	●	●	●	●	●	●	●	●	●
Exhaust Damping Pipe	△	△	△	△	△	△	△	●	●	●
Oil Separator	●	●	●	●	●	●	●	●	●	●
Water-Cooled Condenser	●	●	●	●	●	●	●	●	●	●
Drying Filter	●	●	●	●	●	●	●	●	●	●
Liquid Supply Solenoid Valve	●	●	●	●	●	●	●	●	●	●
High/Low-Pressure Protection	●	●	●	●	●	●	●	●	●	●
High/Low-Pressure Gauges	●	●	●	●	●	●	●	●	●	●
Gas-Liquid Separator	●	●	●	●	●	●	●	●	●	●
Suction Damping Pipe	△	△	△	△	△	△	△	△	△	△
Low-Pressure Pressure Control(Nlegative Pressure Shutdown)	△	△	△	△	△	△	△	△	△	△

● Standard Configuration; △ Optional, additional cost required

CP
Series

CP Series Semi-Hermetic Piston Compressor Air-Cooled Condensing Units

I . Product Overview

The CP series air-cooled condensing units offer the following features
1. High-quality and reliable BITZER semi-hermetic piston refrigeration compressors
2. Designed for high, medium, and low temperature applications
   - High-temperature units meet the needs of cold storage at 5~15°C
   - Medium-temperature units meet the needs of cold storage at -5~5°C
   - Low-temperature units meet the needs of cold storage at-15 ~ -35°C
   - Low-temperature Freezing units meet the needs of cold storage at-35 ~-50°C
3. Compact structure and easy operation and maintenance. The air-cooled condenser, compressor, and various accessories are installed on an integrated frame
4. High-efficiency and low-noise external rotor fan
5. Convenient wiring. The wiring of electrical components(except the com-pressor) is connected to the terminal block built into the unit
6. Suitable for R22,R404A,R507A, R448A, and R449A refrigerants

II . Model Description

CP	B	B	F	–	02	H

- H: Applicable Temperature Code, H: High Temperature, M: Medium Temperature L: Low Temperature, J: Low-temperature Freezing
- 02: Nominal Power Of Compressor (HP)
- F: Cooling Form: F: Air-cooled, S: Water-cooled
- B: Refrigerant Code, A: R22, B：R404A/R507A
- B: Compressor Brand Code, B: Bitzer
- CP: Product Series

III. Main Technical Parameters

1. High Temperature Units

Unit Model				CPBBF-02H	CPBBF-03H	CPBBF-04H	CPBBF-05H	CPBBF-06H	CPBBF-07H
Power Supply				3P/380V/50Hz					
Apply Temp.				5℃~15℃					
Comp.	Model			2GES-2Y	2DES-3Y	2CES-4Y	4FES-5Y	4EES-6Y	4DES-7Y
	Max.I (A)			5	8.6	10	10.8	13.6	16.5
Capacity /Power (KW)	Evap.	R22	10℃	7.4/2.1	13.3/3.4	16.8/4.3	18.2/4.5	23.1/5.8	26.7/6.6
			5℃	6.3/2.0	11.3/3.2	14.3/4.1	15.5/4.3	19.6/5.5	22.7/6.3
			0℃	5.3/1.9	9.5/3.1	12.0/3.9	12.9/4.1	16.4/5.2	19.0/6.0
		R404A R507A	7.5℃	6.6/2.3	12.2/3.8	15.4/4.8	17.0/5.1	21.4/6.5	25.1/7.5
			5℃	6.2/2.2	11.5/3.7	14.5/4.6	16.0/4.9	20.1/6.3	23.6/7.2
			0℃	5.2/2.1	9.6/3.4	12.2/4.3	13.3/4.6	16.7/5.9	19.6/6.8
Fan	Voltage (V)			3P/380V/50Hz					
	Current (A)			0.92	0.92	0.92	1.2	2.2	2.2
	Power (W)			220×2	220×2	220×2	290×2	548×2	548×2
	Rev. (r/min)			1362	1362	1362	1328	1381	1381
Suction Line(mm)				Φ16	Φ22	Φ22	Φ22	Φ28	Φ28
Liquid Line(mm)				Φ9.52	Φ12.7	Φ12.7	Φ12.7	Φ12.7	Φ16

※Parameter Calibration Conditions: Ambient temperature of 32°C, superheat of 10K.

Unit Model				CPBBF-10H	CPBBF-12H	CPBBF-15H	CPBBF-20H	CPBBF-25H	CPBBF-30H
Power Supply				3P/380V/50Hz					
Apply Temp.				5℃~15℃					
Comp.	Model			4VES-10Y	4TES-12Y	4PES-15Y	4NES-20Y	4HE-25Y	4GE-30Y
	Max.I (A)			19.9	25.1	28.2	33.2	44	51.2
Capacity /Power (KW)	Evap.	R22	10℃	37.2/8.7	44.7/10.6	51.6/12.1	60.6/14.2	80.2/18.9	92.8/21.7
			5℃	31.5/8.2	37.9/10.1	43.6/11.5	51.2/13.5	68.0/18.0	78.7/20.7
			0℃	26.1/7.7	31.5/9.4	36.2/10.8	42.6/12.6	56.7/16.9	65.7/19.5
		R404A R507A	7.5℃	33.4/9.7	40.3/11.8	46.4/13.5	54.9/16.0	70.9/21.0	81.0/24.3
			5℃	31.2/9.3	37.7/11.4	43.3/13.0	51.4/15.4	66.6/20.2	76.2/23.4
			0℃	25.8/8.6	31.1/10.6	35.6/12.1	42.5/14.3	55.5/18.9	63.6/21.8
Fan	Voltage (V)			3P/380V/50Hz					
	Current (A)			2.4	2.4	4.4	4.4	6.6	6.6
	Power (W)			290×4	290×4	548×4	548×4	548×6	548×6
	Rev. (r/min)			1328	1328	1381	1381	1381	1381
Suction Line(mm)				Φ28	Φ35	Φ42	Φ42	Φ54	Φ54
Liquid Line(mm)				Φ16	Φ16	Φ22	Φ22	Φ22	Φ22

※Parameter Calibration Conditions: Ambient temperature of 32°C, superheat of 10K.

2. Medium Temperature Units

Unit Model				CPBBF-02M	CPBBF-03M	CPBBF-04M	CPBBF-05M	CPBBF-06M	CPBBF-07M	CPBBF-10M
Power Supply				3P/380V/50Hz						
Apply Temp.				-5℃~5℃						
Comp.	Model			2GES-2Y	2DES-3Y	2CES-4Y	4FES-5Y	4EES-6Y	4DES-7Y	4VES-10Y
	Max.I (A)			5	8.6	10	10.8	13.6	16.5	19.9
Capacity /Power (KW)	Evap.	R22	-5℃	4.3/1.8	7.7/2.9	9.8/3.6	10.5/3.8	13.3/4.9	15.5/5.6	21.2/7.2
			-8℃	3.9/1.7	6.9/2.8	8.7/3.5	9.3/3.7	11.8/4.7	13.7/5.4	18.7/6.9
			-10℃	3.6/1.6	6.3/2.7	8.1/3.4	8.6/3.5	10.9/4.5	12.7/5.2	17.2/6.6
		R404A R507A	-5℃	4.2/2.0	7.9/3.2	9.9/4.1	10.7/4.4	13.5/5.5	15.8/6.4	20.6/8.0
			-8℃	3.7/1.9	6.9/3.1	8.8/3.9	9.5/4.2	11.9/5.3	14.0/6.1	18.1/7.6
			-10℃	3.4/1.8	6.4/2.9	8.2/3.7	8.8/4.1	11.0/5.1	12.9/5.9	16.6/7.3
Fan	Voltage (V)			3P/380V/50Hz						
	Current (A)			0.66	0.92	0.92	0.92	1.2	1.2	2.2
	Power (W)			136×2	220×2	220×2	220×2	290×2	290×2	548×2
	Rev. (r/min)			1373	1362	1362	1362	1328	1328	1381
Suction Line(mm)				Φ16	Φ22	Φ22	Φ22	Φ28	Φ28	Φ28
Liquid Line(mm)				Φ9.52	Φ12.7	Φ12.7	Φ12.7	Φ12.7	Φ16	Φ16

※Parameter Calibration Conditions: Ambient temperature of 32°C, superheat of 10K.

Unit Model				CPBBF-12M	CPBBF-15M	CPBBF-20M	CPBBF-25M	CPBBF-30M	CPBBF-35M	CPBBF-40M
Power Supply				3P/380V/50Hz						
Apply Temp.				-5℃~5℃						
Comp.	Model			4TES-12Y	4PES-15Y	4NES-20Y	4HE-25Y	4GE-30Y	4FE-35Y	6GE-40Y
	Max.I (A)			25.1	28.2	33.2	44	51.2	62.1	73.9
Capacity /Power (KW)	Evap.	R22	-5℃	25.6/8.8	29.3/10.1	34.6/11.8	46.1/15.9	53.6/18.3	63.8/22.0	79.5/27.4
			-8℃	22.6/8.4	25.8/9.5	30.5/11.2	40.8/15.1	47.7/17.4	56.5/20.9	70.3/26.1
			-10℃	20.8/8.1	23.7/9.2	28.1/10.8	37.6/14.5	43.7/16.8	52.1/20.1	64.8/25.1
		R404A R507A	-5℃	25.0/9.9	28.4/11.2	34.0/13.3	44.9/17.6	51.5/20.3	61.7/25.3	74.9/30.3
			-8℃	22.0/9.3	24.9/10.5	30.0/12.6	39.8/16.7	45.7/19.3	54.9/24.0	66.5/28.8
			-10℃	20.2/8.9	22.9/10.1	27.6/12.1	36.7/16.1	42.2/18.6	50.9/23.1	61.6/27.8
Fan	Voltage (V)			3P/380V/50Hz						
	Current (A)			2.4	2.4	4.4	4.4	4.4	6.6	6.6
	Power (W)			290×4	290×4	548×4	548×4	548×4	548×6	548×6
	Rev. (r/min)			1328	1328	1381	1381	1381	1381	1381
Suction Line(mm)				Φ35	Φ42	Φ42	Φ54	Φ54	Φ54	Φ54
Liquid Line(mm)				Φ16	Φ22	Φ22	Φ22	Φ22	Φ22	Φ28

※Parameter Calibration Conditions: Ambient temperature of 32°C, superheat of 10K.

3. Low Temperature Units

Unit Model				CPBBF-02L	CPBBF-03L	CPBBF-04L	CPBBF-05L	CPBBF-06L	CPBBF-09L	CPBBF-12L
Power Supply				3P/380V/50Hz						
Apply Temp.				-15℃~-35℃						
Comp.	Model			2DES-2Y	4FES-3Y	4EES-4Y	4DES-5Y	4CES-6Y	4TES-9Y	4PES-12Y
	Max.I (A)			7.5	9.5	12.2	14.5	17.7	19.9	22.7
Capacity /Power (KW)	Evap.	R22	-25℃	3.1/2.0	4.1/2.5	5.2/3.2	6.1/3.8	7.9/4.9	9.9/6.0	11.5/6.7
			-30℃	2.3/1.7	3.1/2.1	3.9/2.7	4.6/3.2	6.1/4.2	7.5/5.2	8.7/5.8
			-35℃	1.7/1.4	2.2/1.8	2.9/2.2	3.4/2.7	4.5/3.6	5.5/4.4	6.3/4.9
		R404A R507A	-25℃	3.1/2.1	4.3/3.1	5.4/3.8	6.2/4.4	7.7/5.4	9.4/6.4	10.4/6.9
			-30℃	2.3/1.8	3.3/2.7	4.2/3.3	4.8/3.8	5.9/4.6	7.1/5.4	7.7/5.8
			-35℃	1.7/1.5	2.5/2.3	3.1/2.8	3.6/3.2	4.4/3.9	5.2/4.5	5.6/4.7
Fan	Voltage (V)			3P/380V/50Hz						
	Current (A)			0.66	0.66	0.92	0.92	0.92	2.2	2.2
	Power (W)			136×2	136×2	220×2	220×2	220×2	548×2	548×2
	Rev. (r/min)			1373	1373	1362	1362	1362	1381	1381
Suction Line(mm)				Φ22	Φ22	Φ28	Φ28	Φ28	Φ35	Φ35
Liquid Line(mm)				Φ12.7	Φ12.7	Φ12.7	Φ12.7	Φ12.7	Φ16	Φ16

※Parameter Calibration Conditions: Ambient temperature of 32°C, superheat of 10K.

Unit Model				CPBBF-14L	CPBBF-15L	CPBBF-18L	CPBBF-23L	CPBBF-28L	CPBBF-34L	CPBBF-44L
Power Supply				3P/380V/50Hz						
Apply Temp.				-15℃~-35℃						
Comp.	Model			4NES-14Y	4JE-15Y	4HE-18Y	4GE-23Y	4FE-28Y	6GE-34Y	6FE-44Y
	Max.I (A)			26.6	30.8	36.7	43.9	52.8	65.5	83.2
Capacity /Power (KW)	Evap.	R22	-25℃	13.4/7.9	14.7/9.0	17.1/10.4	19.8/12.5	23.6/14.9	29.7/18.7	35.7/22.6
			-30℃	10.1/6.8	11.0/7.6	12.7/8.9	14.8/10.7	17.7/12.8	22.2/16.0	26.9/19.3
			-35℃	7.4/5.7	7.9/6.3	9.1/7.4	10.6/8.9	12.7/10.6	15.9/13.3	19.5/16.1
		R404A R507A	-25℃	12.8/8.6	15.3/10.1	18.2/12.0	21.5/14.3	25.7/17.1	32.4/21.8	38.5/26.2
			-30℃	9.7/7.2	11.7/8.6	14.1/10.3	16.7/12.3	20.0/14.7	25.3/18.9	29.9/22.7
			-35℃	7.1/6.0	8.7/7.3	10.5/8.7	12.6/10.4	15.1/12.5	19.4/16.1	22.7/19.3
Fan	Voltage (V)			3P/380V/50Hz						
	Current (A)			2.2	2.4	2.4	4.4	4.4	4.4	4.4
	Power (W)			548×2	290×4	290×4	548×4	548×4	548×4	548×4
	Rev. (r/min)			1381	1328	1328	1381	1381	1381	1381
Suction Line(mm)				Φ35	Φ42	Φ54	Φ54	Φ54	Φ54	Φ54
Liquid Line(mm)				Φ16	Φ22	Φ22	Φ22	Φ22	Φ22	Φ28

※Parameter Calibration Conditions: Ambient temperature of 32°C, superheat of 10K.

4. Low Temperature Freezing Units

Unit Model				CPBBF-05J	CPBBF-08J	CPBBF-12J	CPBBF-16J	CPBBF-20J	CPBBF-25J	CPBBF-30J
Power Supply				3P/380V/50Hz						
Apply Temp.				-30℃~-50℃						
Comp.	Model			S4T-5.2Y	S4N-8.2Y	S4G-12.2Y	S6J-16.2Y	S6H-20.2Y	S6G-25.2Y	S6F-30.2Y
	Max.I (A)			14	17	24	31	37	45	53
Capacity /Power (KW)	Evap.	R404A R507A	-30℃	7.0/5.0	9.8/7.2	15.1/10.8	21.0/15.4	24.1/17.9	27.5/20.5	32.5/24.4
			-35℃	5.7/4.6	8.1/6.5	12.6/9.8	17.6/13.8	20.3/16.0	23.1/18.4	27.3/21.9
			-40℃	4.6/4.1	6.5/5.9	10.4/8.8	14.5/12.4	16.7/14.3	19.1/16.4	22.6/19.7
			-45℃	3.7/3.7	5.2/5.2	8.4/7.8	11.8/11.0	13.6/12.7	15.5/14.6	18.5/17.5
			-50℃	2.9/3.2	4.4/4.4	6.6/6.9	9.4/9.7	10.9/11.2	12.4/12.9	14.8/15.4
			-55℃	2.2/2.8	3.1/4.0	5.1/6.0	7.3/8.4	8.5/9.8	9.7/11.2	11.5/13.4
Fan	Voltage (V)			3P/380V/50Hz						
	Current (A)			0.92	1.2	2.4	2.4	4.4	4.4	4.4
	Power (W)			220×2	290×2	290×4	290×4	548×4	548×4	548×4
	Rev. (r/min)			1362	1328	1328	1328	1381	1381	1381
Suction Line(mm)				Φ28	Φ28	Φ35	Φ42	Φ42	Φ42	Φ42
Liquid Line(mm)				Φ12.7	Φ12.7	Φ16	Φ22	Φ22	Φ22	Φ22

※Parameter Calibration Conditions: Ambient temperature of 32°C, superheat of 10K.

IV. Configuration Table of Units

1. Medium and High Temperature

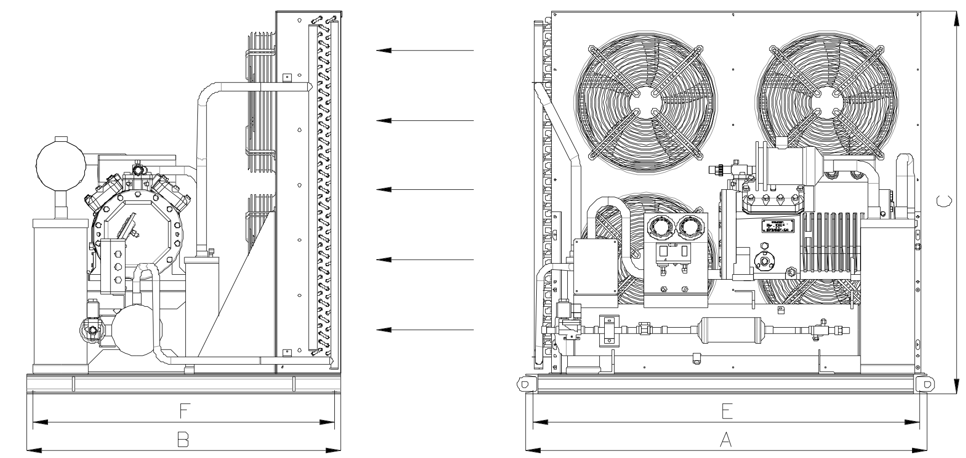
Parts	CPBBF													
	02H 02M	03H 03M	04H 04M	05H 05M	06H 06M	07H 07M	10H 10M	12H 12M	15H 15M	20H 20M	25H 25M	30H 30M	35M	40M
Compressor	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Oil Heater	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Exhaust Damping Pipe	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Oil Separator	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Air Condenser	●	●	●	●	●	●	●	●	●	●	●	●	●	●
AC Motor	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Liquid Receiver	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Liquid Receiver Outlet Shut-off Valve	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Drying Filter	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Liquid Supply Solenoid Valve	●	●	●	●	●	●	●	●	●	●	●	●	●	●
High/Low-Pressure Protection	●	●	●	●	●	●	●	●	●	●	●	●	●	●
High/Low-Pressure Gauges	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Gas-Liquid Separator	△	△	△	△	△	△	△	△	△	△	△	△	△	△
Suction Damping Pipe	△	△	△	△	△	△	△	△	△	△	△	△	△	△
Electronic Oil Pressure (Oil Level) Protection	△	△	△	△	△	△	△	△	△	△	●	●	●	●
High-Pressure Pressure Control (Fan Control)	△	△	△	△	△	△	△	△	△	△	△	△	△	△
Low-Pressure Pressure Control (Negative Pressure Shutdown)	△	△	△	△	△	△	△	△	△	△	△	△	△	△

● Standard Configuration; △ Optional, additional cost required

2. Low Temperature Units

Parts	CPBBF													
	02L	03L	04L	05L	06L	09L	12L	14L	15L	18L	23L	28L	34L	44L
Compressor	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Oil Heater	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Exhaust Damping Pipe	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Oil Separator	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Air Condenser	●	●	●	●	●	●	●	●	●	●	●	●	●	●
AC Motor	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Liquid Receiver	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Liquid Receiver Outlet Shut-off Valve	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Drying Filter	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Liquid Supply Solenoid Valve	●	●	●	●	●	●	●	●	●	●	●	●	●	●
High/Low-Pressure Protection	●	●	●	●	●	●	●	●	●	●	●	●	●	●
High/Low-Pressure Gauges	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Gas-Liquid Separator	△	△	△	△	△	△	△	△	△	△	△	△	△	△
Suction Damping Pipe	△	△	△	△	△	△	△	△	△	△	△	△	△	△
Electronic Oil Pressure (Oil Level) Protection	△	△	△	△	△	△	△	△	●	●	●	●	●	●
High-Pressure Pressure Control (Fan Control)	△	△	△	△	△	△	△	△	△	△	△	△	△	△
Low-Pressure Pressure Control (Negative Pressure Shutdown)	△	△	△	△	△	△	△	△	△	△	△	△	△	△

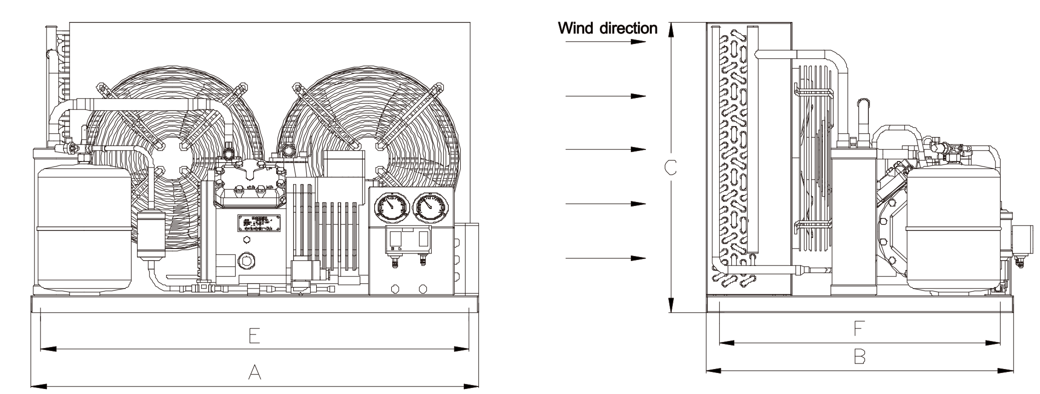
● Standard Configuration; △ Optional, additional cost required



3. Low Temperature Freezing Units

Parts	CPBBF						
	05J	08J	12J	16J	20J	25J	30J
Compressor	●	●	●	●	●	●	●
Oil Heater	●	●	●	●	●	●	●
Exhaust Damping Pipe	●	●	●	●	●	●	●
Oil Separator	●	●	●	●	●	●	●
Air Condenser	●	●	●	●	●	●	●
AC Motor	●	●	●	●	●	●	●
Liquid Receiver	●	●	●	●	●	●	●
Liquid Receiver Outlet Shut-off Valve	●	●	●	●	●	●	●
Drying Filter	●	●	●	●	●	●	●
Liquid Supply Solenoid Valve	●	●	●	●	●	●	●
High/Low-Pressure Protection	●	●	●	●	●	●	●
High/Low-Pressure Gauges	●	●	●	●	●	●	●
Gas-Liquid Separator	●	●	●	●	●	●	●
Suction Damping Pipe	△	△	△	●	●	●	●
Electronic Oil Pressure (Oil Level)Protection	●	●	●	●	●	●	●
High-Pressure Pressure Control (Fan Control)	△	△	△	△	△	△	△
Low-Pressure Pressure Control (Negative Pressure Shutdown)	△	△	△	△	△	△	△

● Standard Configuration; △ Optional, additional cost required



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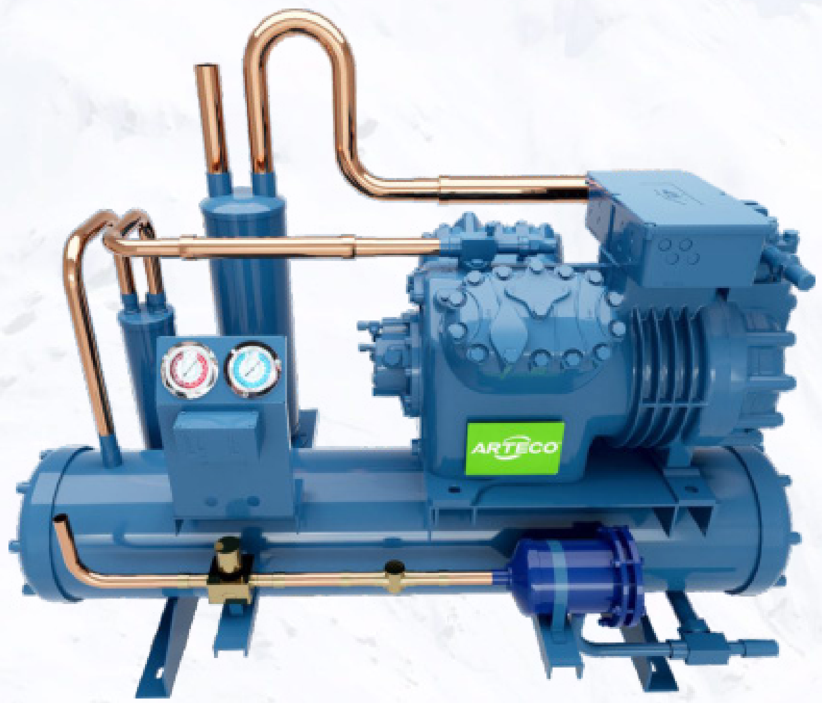


CP Series Semi-Hermetic Piston Compressor Water-Cooled Condensing Units

I . Product Overview

The CP series water-cooled condensing units offer the following features

1. High-quality and reliable BITZER or FRASCOLD semi-hermetic piston refrigeration compressors
2. Designed for high, medium, and low temperature applications
   - High-temperature units meet the needs of cold storage at 8~15°C
   - Medium-temperature units meet the needs of cold storage at -5~5°C
   - Low-temperature units meet the needs of cold storage at -15 ~ -35°C
   - Low-temperature Freezing units meet the needs of cold storage at-35 ~-50°C
3. High-efficiency shell-and-tube water-cooled condenser with excellent cooling effect and low condensing temperature
4. Compact structure and easy operation and maintenance. The water-cooled condenser, compressor, and various accessories are installed on an integrated frame
5. Convenient wiring. The wiring of electrical components (except the com-pressor) is connected to the terminal block built into the unit
6. Suitable for R22, R404A, R507A, R448A, and R449A refrigerants

II . Model Description

CP	B	B	S	–	02	H

- H: Applicable Temperature Code
  H: High Temperature, M:medium Temperature
  L: Low Temperature,j: Low-temperature Freezing
- 02: Nominal Power Of Compressor (HP)
- S: Cooling Form: F: Air-cooled, S: Water-cooled
- B: Refrigerant Code, A: R22, B:R404A/R507A
- B: Compressor Brand Code, E: Emerson
- CP: Product Series

III. Main Technical Parameters

1. High Temperature Units

Unit Model				CPBBS-05H	CPBBS-06H	CPBBS-07H	CPBBS-10H	CPBBS-12H	CPBBS-15H
Power Supply				3P/380V/50Hz					
Apply Temp.				5℃~15℃					
Comp.	Model			4FES-5Y	4EES-6Y	4DES-7Y	4VES-10Y	4TES-12Y	4PES-15Y
	Max.I (A)			10.8	13.6	16.5	19.9	25.1	28.2
Capacity/ Power (KW)	Evap.	R22	10℃	20.0/4.0	25.2/5.1	29.1/5.8	40.3/7.7	48.4/9.3	56.1/10.7
			5℃	16.7/3.9	21.2/5.0	24.5/5.7	33.8/7.5	40.6/9.1	46.9/10.5
			0℃	14.1/3.8	17.8/4.8	20.6/5.5	28.3/7.2	34.1/8.8	39.2/10.1
		R404A R507A	7.5℃	19.8/4.6	25/5.8	29/6.7	38.8/8.7	46.6/10.6	53.9/12.2
			5℃	18.0/4.5	22.6/5.7	26.3/6.6	35.1/8.5	42.2/10.2	48.7/12.0
			0℃	15.1/4.3	19.0/5.5	22.2/6.4	29.3/8.1	35.3/9.9	40.6/11.4
Condenser	Water Flow		m^3/h	3.5	4.5	5.2	7.1	8.5	9.9
	Water Connect		inch	Rc1	Rc1	Rc1-1/2	Rc1-1/2	Rc2	Rc2
Suction Line(mm)				Φ22	Φ28	Φ28	Φ28	Φ35	Φ42
Liquid Line(mm)				Φ12.7	Φ12.7	Φ16	Φ16	Φ16	Φ22

※Remarks: The parameters are calibrated as cooling water inlet temperature 30 °C, condensation temperature 40 °C, superheat 10K.

Unit Model				CPBBS-20H	CPBBS-25H	CPBBS-30H	CPBBS-35H	CPBBS-40H	CPBBS-50H
Power Supply				3P/380V/50Hz					
Apply Temp.				5℃~15℃					
Comp.	Model			4NES-20Y	4HE-25Y	4GE-30Y	4FE-35Y	6GE-40Y	6FE-50Y
	Max.I (A)			33.2	44	51.2	62.1	73.9	96.2
Capacity/ Power (KW)	Evap.	R22	10℃	65.6/12.5	86.8/16.7	100.2/19.1	119.6/23.1	149.4/28.8	179.4/34.8
			5℃	55.0/12.2	72.9/16.3	84.3/18.7	100.6/22.6	125.6/28.2	150.5/34.1
			0℃	46.1/11.8	61.2/15.7	70.8/18.1	84.5/21.8	105.4/27.2	126.7/32.9
		R404A R507A	7.5℃	63.6/14.3	81.9/19.0	93.8/22.1	110.7/27.1	135.7/32.4	164.9/40.3
			5℃	57.6/14.1	74.4/18.6	85.3/21.6	100.9/26.6	123.5/31.8	150.1/39.6
			0℃	48.1/13.4	62.8/17.7	72.0/20.6	85.5/25.4	104.4/30.4	127.1/37.8
Condenser	Water Flow		m^3/h	11.6	15.3	17.7	21.2	26.4	31.7
	Water Connect		inch	Rc2-1/2	Rc2-1/2	Rc2-1/2	Rc2-1/2	Rc2-1/2	Rc2-1/2
Suction Line(mm)				Φ42	Φ54	Φ54	Φ54	Φ54	Φ54
Liquid Line(mm)				Φ22	Φ22	Φ22	Φ22	Φ22	Φ28

※Remarks: The parameters are calibrated as cooling water inlet temperature 30 °C, condensation temperature 40 °C, superheat 10K.

2. Medium Temperature Units

Unit Model				CPBBS-05M	CPBBS-06M	CPBBS-07M	CPBBS-10M	CPBBS-12M	CPBBS-15M
Power Supply				3P/380V/50Hz					
Apply Temp.				-5℃~5℃					
Comp.	Model			4FES-5Y	4EES-6Y	4DES-7Y	4VES-10Y	4TES-12Y	4PES-15Y
	Max.I (A)			10.8	13.6	16.5	19.9	25.1	28.2
Capacity/ Power (KW)	Evap.	R22	-5℃	11.5/3.6	14.6/4.6	16.8/5.3	23.0/6.8	27.8/8.3	31.9/9.5
			-8℃	10.1/3.5	12.8/4.4	14.9/5.1	20.3/6.5	24.5/8.0	28.0/9.1
			-10℃	9.2/3.4	11.8/4.3	13.6/4.9	18.5/6.3	22.4/7.7	25.6/8.8
		R404A R507A	-5℃	12.3/4.1	15.4/5.2	18.0/6.1	23.6/7.6	28.5/9.3	32.6/10.6
			-8℃	10.8/4.0	13.5/5.1	15.8/5.9	20.6/7.3	24.9/8.9	28.4/10.1
			-10℃	9.9/3.9	12.4/4.9	14.5/5.7	18.7/7.0	22.7/8.6	25.8/9.8
Condenser	Water Flow		m^3/h	3.2	4.1	4.8	6.4	7.8	8.9
	Water Connect		inch	Rc1	Rc1	Rc1-1/2	Rc1-1/2	Rc1-1/2	Rc2
Suction Line(mm)				Φ22	Φ28	Φ28	Φ28	Φ35	Φ42
Liquid Line(mm)				Φ12.7	Φ12.7	Φ16	Φ16	Φ16	Φ22

※Remarks: The parameters are calibrated as cooling water inlet temperature 30 °C, condensation temperature 40 °C, superheat 10K.

Unit Model				CPBBS-20M	CPBBS-25M	CPBBS-30M	CPBBS-35M	CPBBS-40M	CPBBS-50M
Power Supply				3P/380V/50Hz					
Apply Temp.				-5℃~5℃					
Comp.	Model			4NES-20Y	4HE-25Y	4GE-30Y	4FE-35Y	6GE-40Y	6FE-50Y
	Max.I (A)			33.2	44	51.2	62.1	73.9	96.2
Capacity/ Power (KW)	Evap.	R22	-5℃	37.6/11.1	50.0/14.9	58.0/17.1	69.1/20.6	86.1/25.7	103.7/31.3
			-8℃	33.0/10.7	44.1/14.3	51.1/16.5	60.9/19.8	75.9/24.7	91.4/30.1
			-10℃	30.2/10.3	40.4/13.9	46.9/16.0	55.9/19.2	69.5/24.0	83.8/29.2
		R404A R507A	-5℃	38.8/12.6	51.1/16.7	58.6/19.3	70.0/24.0	85.2/28.7	103.9/35.7
			-8℃	34.0/12.1	44.9/16.0	51.6/18.5	61.8/23.0	75.1/27.5	91.6/34.2
			-10℃	31.0/11.6	41.1/15.5	47.3/17.9	56.8/22.3	68.9/26.7	84.1/33.2
Condenser	Water Flow		m^3/h	10.5	14	16.1	19.3	24	29
	Water Connect		inch	Rc2	Rc2-1/2	Rc2-1/2	Rc2-1/2	Rc2-1/2	Rc2-1/2
Suction Line(mm)				Φ42	Φ54	Φ54	Φ54	Φ54	Φ54
Liquid Line(mm)				Φ22	Φ22	Φ22	Φ22	Φ22	Φ28

※Remarks: The parameters are calibrated as cooling water inlet temperature 30 °C, condensation temperature 40 °C, superheat 10K.

3. Low Temperature Units

Unit Model				CPBBS-04L	CPBBS-05L	CPBBS-06L	CPBBS-09L	CPBBS-12L	CPBBS-14L
Power Supply				3P/380V/50Hz					
Apply Temp.				-15℃～-35℃					
Comp.	Model			4EES-4Y	4DES-5Y	4CES-6Y	4TES-9Y	4PES-12Y	4NES-14Y
	Max.I (A)			12.2	14.5	17.7	19.9	22.7	26.6
Capacity/ Power (KW)	Evap.	R22	-25℃	5.7/3.1	6.7/3.7	8.6/4.7	10.6/5.6	11.8/6.2	14.2/7.5
			-30℃	4.2/2.7	5.0/3.2	6.5/4.1	8.1/5.1	9.4/5.7	10.9/6.7
			-35℃	3.1/2.2	3.6/2.7	4.8/3.5	5.9/4.3	6.8/4.8	7.9/5.7
		R404A R507A	-25℃	6.1/3.7	7.1/4.3	8.7/5.2	10.7/6.2	12.0/6.8	14.6/8.5
			-30℃	4.6/3.3	5.3/3.7	6.6/4.5	8.0/5.3	8.8/5.8	10.9/7.2
			-35℃	3.4/2.8	3.9/3.2	4.8/3.9	5.8/4.4	6.2/4.7	7.8/6.1
Condenser	Water Flow		m^3/h	2.8	3.3	4	4.8	5.4	6.6
	Water Connect		inch	Rc1	Rc1	Rc1	Rc1-1/2	Rc1-1/2	Rc1-1/2
Suction Line(mm)				Φ28	Φ28	Φ28	Φ35	Φ35	Φ35
Liquid Line(mm)				Φ12.7	Φ12.7	Φ12.7	Φ16	Φ16	Φ16

※Remarks: The parameters are calibrated as cooling water inlet temperature 30 °C, condensation temperature 40 °C, superheat 10K.

Unit Model				CPBBS-15L	CPBBS-18L	CPBBS-23L	CPBBS-28L	CPBBS-34L	CPBBS-44L
Power Supply				3P/380V/50Hz					
Apply Temp.				-15℃～-35℃					
Comp.	Model			4JE-15Y	4HE-18Y	4GE-23Y	4FE-28Y	6GE-34Y	6FE-44Y
	Max.I (A)			30.8	36.7	43.9	52.8	65.5	83.2
Capacity/ Power (KW)	Evap.	R22	-25℃	16.5/8.6	19.2/10.1	23.2/12.3	27.7/14.5	34.2/18.1	41.6/22.1
			-30℃	11.8/7.5	13.7/8.7	15.9/10.4	19.1/12.4	23.9/15.5	28.9/18.6
			-35℃	8.4/6.3	9.7/7.3	11.3/8.8	13.5/10.5	17.0/13.1	20.7/15.8
		R404A R507A	-25℃	17.4/9.8	20.6/11.7	24.2/13.9	28.9/16.7	36.3/21.1	43.3/25.5
			-30℃	13.1/8.7	15.6/10.2	18.4/12.1	22.1/14.5	27.9/18.5	33.1/22.4
			-35℃	9.5/7.3	11.5/8.7	13.7/10.3	16.4/12.4	20.9/15.9	24.6/19.3
Condenser	Water Flow		m^3/h	7.8	9.3	10.9	13.1	16.5	19.7
	Water Connect		inch	Rc2	Rc2	Rc2	Rc2-1/2	Rc2-1/2	Rc2-1/2
Suction Line(mm)				Φ42	Φ42	Φ54	Φ54	Φ54	Φ54
Liquid Line(mm)				Φ22	Φ22	Φ22	Φ22	Φ22	Φ28

※Remarks: The parameters are calibrated as cooling water inlet temperature 30 °C, condensation temperature 40 °C, superheat 10K.

4. Low Temperature Freezing Units

Unit Model				CPBBS-05J	CPBBS-08J	CPBBS-12J	CPBBS-16J	CPBBS-20J	CPBBS-25J	CPBBS-30J
Power Supply				3P/380V/50Hz						
Apply Temp.				-30℃～-50℃						
Comp.	Model			S4T-5.2Y	S4N-8.2Y	S4G-12.2Y	S6J-16.2Y	S6H-20.2Y	S6G-25.2Y	S6F-30.2Y
	Max.I (A)			14	17	24	31	37	45	53
Capacity/ Power (KW)	Evap.	R22	-30℃	7.1/4.7	10.1/6.8	15.6/10.2	21.5/14.6	24.9/16.9	28.3/19.4	33.6/23.1
			-35℃	5.8/4.4	8.2/6.2	12.9/9.4	18.0/13.2	20.8/15.3	23.7/17.6	28.1/21.0
			-40℃	4.7/4.0	6.6/5.7	10.6/8.5	14.8/11.9	17.1/13.8	19.5/15.9	23.1/19.0
		R404A R507A	-45℃	3.7/3.6	5.3/5.1	8.5/7.6	12.0/10.6	13.9/12.3	15.8/14.2	18.8/17.0
			-50℃	2.9/3.1	4.1/4.5	6.7/6.7	9.5/9.4	11.0/10.9	12.6/12.6	15.0/15.0
			-55℃	2.2/2.7	3.2/3.9	5.2/5.9	7.4/8.3	8.6/9.6	9.8/11.0	11.7/13.1
	Water Flow		m^3/h	3.4	4.8	7.4	10.3	12	13.7	16.3
	Water Connect		inch	Rc1	Rc1-1/2	Rc1-1/2	Rc2	Rc2	Rc2-1/2	Rc2-1/2
Suction Line(mm)				Φ28	Φ28	Φ35	Φ42	Φ42	Φ42	Φ42
Liquid Line(mm)				Φ12.7	Φ12.7	Φ16	Φ22	Φ22	Φ22	Φ22

※Remarks: The parameters are calibrated as cooling water inlet temperature 30 °C, condensation temperature 40 °C, superheat 10K.

IV. Configuration Table of Units

1. Medium and High Temperature

Parts	CPBBS											
	05H 05M	06H 06M	07H 07M	10H 10M	12H 12M	15H 15M	20H 20M	25H 25M	30H 30M	35H 35M	40H 40M	50H 50M
Compressor	●	●	●	●	●	●	●	●	●	●	●	●
Oil Heating Belt	●	●	●	●	●	●	●	●	●	●	●	●
Exhaust Damping Pipe	●	●	●	●	●	●	●	●	●	●	●	●
Oil Separator	●	●	●	●	●	●	●	●	●	●	●	●
Water-Cooled Condenser	●	●	●	●	●	●	●	●	●	●	●	●
Drying Filter	●	●	●	●	●	●	●	●	●	●	●	●
Liquid Supply Solenoid Valve	●	●	●	●	●	●	●	●	●	●	●	●
High/Low-Pressure Protection	●	●	●	●	●	●	●	●	●	●	●	●
High/Low-Pressure Gauges	●	●	●	●	●	●	●	●	●	●	●	●
Gas-Liquid Separator	△	△	△	△	△	△	△	△	△	△	△	△
Suction Damping Pipe	△	△	△	△	△	△	△	△	△	△	△	△
Electronic Oil Pressure (Oil Level) Protection	△	△	△	△	△	△	△	●	●	●	●	●
Low-Pressure Pressure Control (Negative Pressure Shutdown)	△	△	△	△	△	△	△	△	△	△	△	△

● Standard Configuration; △ Optional, additional cost required.

2. Low Temperature Units

Parts	CPBBS											
	04L	05L	06L	09L	12L	14L	15L	18L	23L	28L	34L	44L
Compressor	●	●	●	●	●	●	●	●	●	●	●	●
Oil Heating Belt	●	●	●	●	●	●	●	●	●	●	●	●
Exhaust Damping Pipe	●	●	●	●	●	●	●	●	●	●	●	●
Oil Separator	●	●	●	●	●	●	●	●	●	●	●	●
Water-Cooled Condenser	●	●	●	●	●	●	●	●	●	●	●	●
Drying Filter	●	●	●	●	●	●	●	●	●	●	●	●
Liquid Supply Solenoid Valve	●	●	●	●	●	●	●	●	●	●	●	●
High/Low-Pressure Protection	●	●	●	●	●	●	●	●	●	●	●	●
High/Low-Pressure Gauges	●	●	●	●	●	●	●	●	●	●	●	●
Gas-Liquid Separator	△	△	△	△	△	△	△	△	△	△	△	△
Suction Damping Pipe	△	△	△	△	△	△	△	△	△	△	△	△
Electronic Oil Pressure (Oil Level) Protection	△	△	△	△	△	△	●	●	●	●	●	●
Low-Pressure Pressure Control (Negative Pressure Shutdown)	△	△	△	△	△	△	△	△	△	△	△	△

● Standard Configuration; △ Optional, additional cost required

3. Low Temperature Freezing Units

Parts	CPBBS						
	05J	08J	12J	16J	20J	25J	30J
Compressor	●	●	●	●	●	●	●
Oil Heating Belt	●	●	●	●	●	●	●
Exhaust Damping Pipe	●	●	●	●	●	●	●
Oil Separator	●	●	●	●	●	●	●
Water-Cooled Condenser	●	●	●	●	●	●	●
Drying Filter	●	●	●	●	●	●	●
Liquid Supply Solenoid Valve	●	●	●	●	●	●	●
High/Low-Pressure Protection	●	●	●	●	●	●	●
High/Low-Pressure Gauges	●	●	●	●	●	●	●
Gas-Liquid Separator	●	●	●	●	●	●	●
Suction Damping Pipe	△	△	△	●	●	●	●
Electronic Oil Pressure (Oil Level) Protection	●	●	●	●	●	●	●
Low-Pressure Pressure Control (Negative Pressure Shutdown)	△	△	△	△	△	△	△

● Standard Configuration; △ Optional, additional cost required

DS
Series

DS Series Bitzer Semi-Hermetic Compressor Water-Cooled Condensing Units

Ⅰ. Product Overview

1. DS series semi-hermetic condensing unit is mainly used in cold storage projects with large cooling capacity requirements
2. Adopts BITZER HSK/HSN series low screw compressor with single unit and parallel unit.1. Mainly to meet the + 5℃ ~ - 5℃ food preservation,-18℃ below low temperature refrigeration and-35℃ food quick-frozen use, single nominal power from 40 HP to 190 HP, with a single compressor Group and multi-compressor parallel connection unit
3. The standard design of the unit adopts water-cooled condensation, utilizing a high-efficiency shell and tube water-cooled condenser, accompanied by a separate liquid reservoir
4. The standard design of the low-temperature unit includes an external high-efficiency oil separator, economizer system, and oil cooler system, employing a high-efficiency shell and tube oil cooler
5. The unit utilizes Siemens PLC control and key electrical components from Schneider. It has control and various protection functions for compressor start/stop, capacity adjustment, oil cooling system, economizer system, cooling water pump, and cooling tower fan. Additionally, it is equipped with remote communication capabilities
6. The unit standard uses R404A or R507A refrigerant

Ⅱ. Model Description

DS | B | B | S | – | 002 | H | / | 2

- 2: Number Of Compressors for Unit
- H: Applicable Temperature Code
  H: High Temperature, M: Medium Temperature
  L: Low Temperature, J: Low-temperature Freezing
- 002: Nominal Power Of Compressor (HP)
- S: Cooling Form: F: Air-cooled, S: Water-cooled
- B: Refrigerant Code, A: R22，B：R404A/R507A
- B: Compressor Brand Code, E: Emerson
- DS: Product Series;

III. Main Technical Parameters

1. Medium Temperature Units

Unit Model			DSBBS-50M/1	DSBBS-60M/1	DSBBS-70M/1	DSBBS-80M/1	DSBBS-90M/1	DSBBS-110M/1
Power Supply			3P/380V/50Hz					
Apply Temp.			-5℃~5℃					
Comp.	Model		HSK6451-50	HSK6461-60	HSK7451-70	HSK7461-80	HSK7471-90	HSK8551-110
	Number		1	1	1	1	1	1
	Max.I(A)		79	98	124	144	162	180
Capacity /Power (KW)	Evap. R404A R507A	5℃	151.0/36.4	181.3/47.1	221.0/51.4	251.0/60.0	275.0/69.1	345.0/82.6
		0℃	127.3/35.9	153.0/46.0	186.1/52.0	212.0/59.4	232.0/67.4	290.0/81.2
		-5℃	105.1/35.5	126.5/45.0	153.5/52.4	175.0/58.8	191.7/65.8	239.0/79.8
		-10℃	86.1/35.2	103.6/43.9	125.4/52.7	143.4/58.3	157.1/64.3	194.7/78.6
		-15℃	70.9/34.7	85.2/43.0	103.0/52.8	118.1/57.6	129.3/62.9	159.4/77.5
Condenser	Type of Condenser		Shell And Tube Type					
	Water Row(m^3/h)		28.1	34.2	40.9	46.7	51.5	63.8
	Water Row(inch)		DN80	DN80	DN80	DN80	DN80	DN100
Liquid Line(mm)			Φ28	Φ28	Φ28	Φ28	Φ35	Φ35
Suction Line(mm)			DN50	DN50	DN80	DN80	DN80	DN100
Size	L(mm)		1650	1650	1900	1900	1900	2380
	W(mm)		1000	1000	1100	1100	1100	1200
	H(mm)		1530	1530	1650	1650	1650	1850

※Remarks: The parameters are calibrated as cooling water inlet temperature 30 ℃, condensation temperature 40 ℃, superheat 10K.

Unit Model			DSBBS-125M/1	DSBBS-140M/1	DSBBS-160M/1	DSBBS-180M/1	DSBBS-100M/2	DSBBS-120M/2
Power Supply			3P/380V/50Hz					
Apply Temp.			-5℃~5℃					
Comp.	Model		HSK8561-125	HSK8571-140	HSK8581-160	HSK8591-180	HSK6451-50	HSK6461-60
	Number		1	1	1	1	2	2
	Max.I(A)		216	246	277	330	2×79	2×98
Capacity /Power (KW)	Evap. R404A R507A	5℃	392.0/95.3	445.0/108.4	507.0/120.4	580.0/135.7	302.0/72.8	362.6/94.2
		0℃	330.0/93.3	376.0/105.9	430.0/116.8	490.0/132.3	254.6/71.8	306.0/92.0
		-5℃	272.0/91.5	311.0/103.4	357.0/113.2	406.0/128.7	210.2/71.0	253.0/90.0
		-10℃	222.0/89.8	255.0/101.2	294.0/109.9	334.0/125.1	172.2/70.4	207.2/87.8
		-15℃	182.6/88.3	211.0/99.3	244.0/107.1	276.0/122.1	141.8/69.4	170.4/86.0
Condenser	Type of Condenser		Shell And Tube Type					
	Water Row(m^3/h)		72.8	82.9	94.0	107.0	56.1	68.4
	Water Row(inch)		DN100	DN100	DN125	DN125	DN100	DN100
Liquid Line(mm)			Φ35	Φ42	Φ42	Φ42	Φ35	Φ35
Suction Line(mm)			DN100	DN100	DN100	DN100	DN80	DN80
Size	L(mm)		2380	2650	2650	2650	2500	2500
	W(mm)		1200	1200	1200	1200	1650	1650
	H(mm)		1850	1980	1980	1980	1850	1850

※Remarks: The parameters are calibrated as cooling water inlet temperature 30 ℃, condensation temperature 40 ℃, superheat 10K.

Unit Model			DSBBS-140M/2	DSBBS-160M/2	DSBBS-180M/2	DSBBS-220M/2	DSBBS-250M/2	DSBBS-280M/2
Power Supply			3P/380V/50Hz					
Apply Temp.			-5℃~5℃					
Comp.	Model		HSK7451-70	HSK7461-80	HSK7471-90	HSK8551-110	HSK8561-125	HSK8571-140
	Number		2	2	2	2	2	2
	Max.I(A)		2×124	2×144	2×162	2×180	2×216	2×246
Capacity /Power (KW)	Evap. R404A R507A	5℃	442.0/102.8	502.0/120.0	550.0/138.2	690.0/165.2	784.0/190.6	890.0/216.8
		0℃	372.2/104.0	424.0/118.8	464.0/134.8	580.0/162.4	660.0/186.6	752.0/211.8
		-5℃	307.0/104.8	350.0/117.6	383.4/131.6	478.0/159.6	544.0/183.0	622.0/206.8
		-10℃	250.8/105.4	286.8/116.6	314.2/128.6	389.4/157.2	444.0/179.6	510.0/202.4
		-15℃	206.0/105.6	236.2/115.2	258.6/125.8	318.8/155.0	365.2/176.6	422.0/198.6
Condenser	Type of Condenser		Shell And Tube Type					
	Water Row(m^3/h)		81.9	93.3	103.0	127.7	145.6	165.7
	Water Row(inch)		DN100	DN100	DN125	DN125	DN125	DN150
Liquid Line(mm)			Φ42	Φ42	Φ42	DN50	DN50	DN50
Suction Line(mm)			DN100	DN100	DN100	DN100	DN125	DN125
Size	L(mm)		2500	2500	2500	3000	3000	3000
	W(mm)		1650	1650	1850	1850	1850	1850
	H(mm)		1980	1980	1980	2260	2260	2300

※Remarks: The parameters are calibrated as cooling water inlet temperature 30 ℃, condensation temperature 40 ℃, superheat 10K.

Unit Model			DSBBS-320M/2	DSBBS-360M/2	DSBBS-150M/3	DSBBS-180M/3	DSBBS-210M/3	DSBBS-240M/3
Power Supply			3P/380V/50Hz					
Apply Temp.			-5℃~5℃					
Comp.	Model		HSK8581-160	HSK8591-180	HSK6451-50	HSK6461-60	HSK7451-70	HSK7461-80
	Number		2	2	3	3	3	3
	Max.I(A)		2×277	2×330	3×79	3×98	3×124	3×144
Capacity /Power (KW)	Evap. R404A R507A	5℃	1014.0/240.8	1160.0/271.4	453.0/109.2	543.9/141.3	663.0/154.2	753.0/180.0
		0℃	860.0/233.6	980.0/264.6	381.9/107.7	459.0/138.0	558.3/156.0	636.0/178.2
		-5℃	714.0/226.4	812.0/257.4	315.3/106.5	379.5/135.0	460.5/157.2	525.0/176.4
		-10℃	588.0/219.8	668.0/250.2	258.3/105.6	310.8/131.7	376.2/158.1	430.2/174.9
		-15℃	488.0/214.2	552.0/244.2	212.7/104.1	255.6/129.0	309.0/158.4	354.3/172.8
Condenser	Type of Condenser		Shell And Tube Type					
	Water Row(m^3/h)		188.1	214.0	84.2	102.7	122.8	140.0
	Water Row(inch)		DN150	DN150	DN100	DN125	DN125	DN125
Liquid Line(mm)			DN50	DN50	Φ42	Φ42	DN50	DN50
Suction Line(mm)			DN125	DN125	2×DN65	2×DN65	2×DN80	2×DN80
Size	L(mm)		3000	3000	3500	3500	3500	3500
	W(mm)		1850	1850	1700	1700	1700	1700
	H(mm)		2300	2300	1850	1850	1980	1980

※Remarks: The parameters are calibrated as cooling water inlet temperature 30 ℃, condensation temperature 40 ℃, superheat 10K.

Unit Model			DSBBS-270M/3	DSBBS-330M/3	DSBBS-375M/3	DSBBS-420M/3	DSBBS-480M/3	DSBBS-540M/3
Power Supply			3P/380V/50Hz					
Apply Temp.			-5°C~5°C					
Comp.	Model		HSK7471-90	HSK8551-110	HSK8561-125	HSK8571-140	HSK8581-160	HSK8591-180
	Number		3	3	3	3	3	3
	Max.I(A)		3×162	3×180	3×216	3×246	3×277	3×330
Capacity /Power (KW)	Evap. R404A R507A	5°C	825.0/207.3	1035.0/247.8	1176.0/285.9	1335.0/325.2	1521.0/361.2	1740.0/407.1
		0°C	696.0/202.2	870.0/243.6	990.0/279.9	1128.0/317.7	1290.0/350.4	1470.0/396.9
		-5°C	575.1/197.4	717.0/239.4	816.0/274.5	933.0/310.2	1071.0/339.6	1218.0/386.1
		-10°C	471.3/192.9	584.1/235.8	666.0/269.4	765.0/303.6	882.0/329.7	1002.0/375.3
		-15°C	387.9/188.7	478.2/232.5	547.8/264.9	633.0/297.9	732.0/321.3	828.0/366.3
Condenser	Type of Condenser		Shell and Tube Type					
	Water Row(m^3/h)		154.5	191.5	218.4	248.6	282.1	321.0
	Water Row(inch)		DN125	DN150	DN150	DN150	DN200	DN200
Liquid Line(mm)			DN50	DN50	DN50	DN65	DN65	DN65
Suction Line(mm)			2×DN100	2×DN100	2×DN100	2×DN125	2×DN125	2×DN125
Size	L(mm)		3500	3600	3600	3850	3850	3850
	W(mm)		1700	1900	1900	2000	2000	2000
	H(mm)		1980	2280	2280	2380	2380	2380

※Remarks: The parameters are calibrated as cooling water inlet temperature 30 °C, condensation temperature 40 °C, superheat 10K.

Unit Model			DSBBS-200M/4	DSBBS-240M/4	DSBBS-280M/4	DSBBS-320M/4	DSBBS-360M/4	DSBBS-440M/4
Power Supply			3P/380V/50Hz					
Apply Temp.			-5°C~5°C					
Comp.	Model		HSK6451-50	HSK6461-60	HSK7451-70	HSK7461-80	HSK7471-90	HSK8551-110
	Number		4	4	4	4	4	4
	Max.I(A)		4×79	4×98	4×124	4×144	4×162	4×180
Capacity /Power (KW)	Evap. R404A R507A	5°C	604.0/145.6	725.2/188.4	884.0/205.6	1004.0/240.0	1100.0/276.4	1380.0/330.4
		0°C	509.2/143.6	612.0/184.0	744.4/208.0	848.0/237.6	928.0/269.6	1160.0/324.8
		-5°C	420.4/142.0	506.0/180.0	614.0/209.6	700.0/235.2	766.8/263.2	956.0/319.2
		-10°C	344.4/140.8	414.4/175.6	501.6/210.8	573.6/233.2	628.4/257.2	778.8/314.4
		-15°C	283.6/138.8	340.8/172.0	412.0/211.2	472.4/230.4	517.2/251.6	637.6/310.0
Condenser	Type of Condenser		Shell and Tube Type					
	Water Row(m^3/h)		112.3	136.9	163.8	186.7	206.0	255.3
	Water Row(inch)		DN125	DN125	DN125	DN150	DN150	DN150
Liquid Line(mm)			DN50	DN50	DN50	DN50	DN50	DN65
Suction Line(mm)			2×DN65	2×DN65	2×DN80	2×DN80	2×DN100	2×DN125
Size	L(mm)		3800	3800	3980	3980	3980	3980
	W(mm)		1700	1700	1800	1800	1800	1900
	H(mm)		1850	1850	2080	2080	2080	2280

※Remarks: The parameters are calibrated as cooling water inlet temperature 30 °C, condensation temperature 40 °C, superheat 10K.

2.Low Temperature Units

Unit Model			DSBBS-40L/1	DSBBS-50L/1	DSBBS-60L/1	DSBBS-70L/1	DSBBS-75L/1	DSBBS-110L/1
Power Supply			3P/380V/50Hz					
Apply Temp.			-15°C~-40°C					
Comp.	Model		HSN6451-40	HSN6461-50	HSN7451-60	HSN7461-70	HSN7471-75	HSN8561-110
	Number		1	1	1	1	1	1
	Max.I(A)		65	79	98	124	144	197
Capacity /Power (KW)	Evap. R404A R507A	-25°C	59.3/36.1	69.2/43.6	85.1/52.5	98.9/57.1	105.2/63.1	148.7/91.2
		-30°C	48.9/35.0	57.3/41.8	70.1/51.4	81.6/55.3	87.2/60.5	120.5/87.9
		-35°C	39.7/33.7	46.8/40.0	56.8/50.3	66.3/53.4	71.2/57.9	95.9/84.4
		-40°C	31.5/32.3	37.5/38.0	44.8/48.9	52.7/51.4	56.9/55.2	74.4/81.1
		-45°C	24.4/30.9	29.2/36.1	34.5/47.4	40.9/49.2	44.6/52.6	56.3/78.7
Condenser	Type of Condenser		Shell and Tube Type					
	Water Row(m^3/h)		27.3	32.3	39.4	44.7	48.2	68.8
	Water Row(inch)		DN65	DN65	DN65	DN80	DN80	DN100
Oil Cooler Type			Shell and Tube Type					
Oil Cooler Nozzle(inch)			DN25	DN25	DN32	DN32	DN32	DN32
Liquid Line(mm)			Φ28	Φ28	Φ28	Φ28	Φ28	Φ35
Suction Line(mm)			DN50	DN50	DN80	DN80	DN80	DN100
Size	L(mm)		1650	1650	1900	1900	1900	2380
	W(mm)		1000	1000	1100	1100	1100	1200
	H(mm)		1530	1530	1650	1650	1650	1850

※Remarks: The parameters are calibrated as cooling water inlet temperature 30 °C, condensation temperature 40 °C, superheat 10K.

Unit Model			DSBBS-125L/1	DSBBS-160L/1	DSBBS-80L/2	DSBBS-100L/2	DSBBS-120L/2	DSBBS-140L/2
Power Supply			3P/380V/50Hz					
Apply Temp.			-15°C~-40°C					
Comp.	Model		HSN8571-125	HSN8591-160	HSN6451-40	HSN6461-50	HSN7451-60	HSN7461-70
	Number		1	1	2	2	2	2
	Max.I(A)		216	274	2×65	2×79	2×98	2×124
Capacity /Power (KW)	Evap. R404A R507A	-25°C	173.7/100.3	224.0/128.4	118.6/72.2	138.4/87.2	170.2/105.0	197.8/114.2
		-30°C	143.7/95.7	185.4/124.4	97.8/70.0	114.6/83.6	140.2/102.8	163.2/110.6
		-35°C	117.1/91.4	151.5/119.8	79.4/67.4	93.6/80.0	113.6/100.6	132.6/106.8
		-40°C	93.4/87.2	120.7/114.2	63.0/64.6	75.0/76.0	89.6/97.8	105.4/102.8
		-45°C	72.9/83.2	94.0/107.9	48.4/61.8	58.4/72.2	69.0/94.8	81.8/105.2
Condenser	Type of Condenser		Shell and Tube Type					
	Water Row(m^3/h)		78.5	101.0	54.7	64.7	78.9	89.4
	Water Row(inch)		DN100	DN125	DN100	DN100	DN100	DN100
Oil Cooler Type			Shell and Tube Type					
Oil Cooler Nozzle(inch)			DN32	DN50	DN32	DN32	DN32	DN50
Liquid Line(mm)			Φ35	Φ42	Φ35	Φ35	Φ35	Φ35
Suction Line(mm)			DN100	DN100	DN80	DN80	DN100	DN100
Size	L(mm)		2380	2380	2500	2500	2500	2500
	W(mm)		1200	1200	1850	1850	1850	1850
	H(mm)		1850	1950	1950	1950	2190	2190

※Remarks: The parameters are calibrated as cooling water inlet temperature 30 °C, condensation temperature 40 °C, superheat 10K.

DS Series Bitzer Semi-Hermetic Compressor Water-Cooled Condensing Units

Unit Model				DSBBS-150L/2	DSBBS-220L/2	DSBBS-250L/2	DSBBS-320L/2	DSBBS-120L/3	DSBBS-150L/3
Power Supply				3P/380V/50Hz					
Apply Temp.				-15℃~-40℃					
Comp.	Model			HSN7471-75	HSN8561-110	HSN8571-125	HSN8591-160	HSN6451-40	HSN6461-50
	Number			2	2	2	2	3	3
	Max.I(A)			2×144	2×197	2×216	2×274	3×65	3×79
Capacity /Power (KW)	Evap.	R404A R507A	-25℃	210.4/126.2	297.4/182.4	347.4/200.6	448.0/256.8	177.9/108.3	207.6/130.8
			-30℃	174.4/121.0	241.0/175.8	287.4/191.4	370.8/248.8	146.7/105.0	171.9/125.4
			-35℃	142.4/115.8	191.8/168.8	234.2/182.8	303.0/239.6	119.1/101.1	140.4/120.0
			-40℃	113.8/110.4	148.8/162.2	186.8/174.4	241.4/228.4	94.5/96.9	112.5/114.0
			-45℃	89.2/105.2	112.6/157.4	145.8/166.4	188.0/215.8	73.2/92.7	87.6/108.3
Condenser	Type of Condenser			Shell and Tube Type					
	Water Row(m^3/h)			96.5	137.5	157.1	202.0	82.0	97.0
	Water Row(inch)			DN125	DN125	DN150	DN150	DN100	DN125
Oil Cooler Type				Shell and Tube Type					
Oil Cooler Nozzle(inch)				DN50	DN50	DN50	DN50	DN32	DN50
Liquid Line(mm)				Φ42	DN50	DN50	DN50	Φ35	Φ42
Suction Line(mm)				DN100	DN125	DN125	DN125	2×DN65	2×DN65
Size	L(mm)			2500	3000	3000	3000	3000	3000
	W(mm)			1850	2000	2000	2000	1850	1850
	H(mm)			2190	2280	2280	2280	1950	1950

※Remarks: The parameters are calibrated as cooling water inlet temperature 30 °C, condensation temperature 40 °C, superheat 10K.

Unit Model				DSBBS-180L/3	DSBBS-210L/3	DSBBS-225L/3	DSBBS-330L/3	DSBBS-375L/3	DSBBS-480L/3
Power Supply				3P/380V/50Hz					
Apply Temp.				-15℃~-40℃					
Comp.	Model			HSN7451-60	HSN7461-70	HSN7471-75	HSN8561-110	HSN8571-125	HSN8591-160
	Number			3	3	3	3	3	3
	Max.I(A)			3×98	3×124	3×144	3×197	3×216	3×274
Capacity /Power (KW)	Evap.	R404A R507A	-25℃	255.3/157.5	296.7/171.3	315.6/189.3	446.1/273.6	521.1/300.9	672.0/385.2
			-30℃	210.3/154.2	244.8/165.9	261.6/181.5	361.5/263.7	431.1/287.1	556.2/373.2
			-35℃	170.4/150.9	198.9/160.2	213.6/173.7	287.7/253.2	351.3/274.2	454.5/359.4
			-40℃	134.4/146.7	158.1/154.2	170.7/165.6	223.2/243.3	280.2/261.6	362.1/342.6
			-45℃	103.5/142.2	122.7/147.6	133.8/157.8	168.9/236.1	218.7/249.6	282.0/323.7
Condenser	Type of Condenser			Shell and Tube Type					
	Water Row(m^3/h)			118.3	134.1	144.7	206.3	235.6	303.0
	Water Row(inch)			DN125	DN125	DN150	DN150	DN150	DN200
Oil Cooler Type				Shell and Tube Type					
Oil Cooler Nozzle(inch)				DN50	DN50	DN50	DN65	DN65	DN65
Liquid Line(mm)				Φ42	DN50	DN50	DN65	DN65	DN65
Suction Line(mm)				2×DN100	2×DN100	2×DN100	2×DN125	2×DN125	2×DN125
Size	L(mm)			3000	3000	3000	3600	3600	3600
	W(mm)			1850	1850	1850	2000	2000	2000
	H(mm)			2190	2190	2190	2380	2380	2380

※Remarks: The parameters are calibrated as cooling water inlet temperature 30 °C, condensation temperature 40 °C, superheat 10K.

Unit Model				DSBBS-200L/4	DSBBS-240L/4	DSBBS-280L/4	DSBBS-300L/4	DSBBS-500L/4	DSBBS-640L/4
Power Supply				3P/380V/50Hz					
Apply Temp.				-15℃~-40℃					
Comp.	Model			HSN6461-50	HSN7451-60	HSN7461-70	HSN7471-75	HSN8571-125	HSN8591-160
	Number			4	4	4	4	4	4
	Max.I(A)			4×79	4×98	4×124	4×144	4×216	4×274
Capacity /Power (KW)	Evap.	R404A R507A	-25℃	276.8/174.4	340.4/210.0	395.6/228.4	420.8/252.4	694.8/401.2	896.0/513.6
			-30℃	229.2/167.2	280.4/205.6	326.4/221.2	348.8/242.0	574.8/382.8	741.6/497.6
			-35℃	187.2/160.0	227.2/201.2	265.2/213.6	284.8/231.6	468.4/365.6	606.0/479.2
			-40℃	150.0/152.0	179.2/195.6	210.8/205.6	227.6/220.8	373.6/348.8	482.8/456.8
			-45℃	116.8/144.4	138.0/189.6	163.6/196.8	178.4/210.4	291.6/332.8	376.0/431.6
Condenser	Type of Condenser			Shell and Tube Type					
	Water Row(m^3/h)			129.3	157.8	178.8	192.9	314.1	404.0
	Water Row(inch)			DN125	DN150	DN150	DN150	DN200	DN200
Oil Cooler Type				Shell and Tube Type					
Oil Cooler Nozzle(inch)				DN50	DN50	DN50	DN50	DN65	DN65
Liquid Line(mm)				Φ42	Φ42	DN50	DN50	DN65	DN65
Suction Line(mm)				2×DN80	2×DN100	2×DN100	2×DN100	2×DN125	2×DN125
Size	L(mm)			3600	3600	3600	3600	4200	4200
	W(mm)			1850	1850	1850	1850	2150	2150
	H(mm)			1950	2290	2290	2290	2380	2380

※Remarks: The parameters are calibrated as cooling water inlet temperature 30 °C, condensation temperature 40 °C, superheat 10K.

IV. Configuration Table of Units

Parts	Configuration	
	DSBBS-MY	DSBBS-LY
Screw Compressor	●	●
Crankcase Heater	●	●
Stop Check Valve	●	●
Shell And Tube Condenser	●	●
Receiver	●	●
Liquid Receiver Inlet Stop Valve	▲	▲
Drier Filter	●	●
Liquid Line Solenoid Valve	▲	▲
Sight Glass	●	●
Economizer Assembly	▲	●
Oil Line Assembly	●	●
Oil Cooler	▲	●
Suction Filter	●	●
Hp/lp SwitchFo Compressor	●	●
Liquid Line Valve	●	●
Suction Line Valve	●	●
Electric ControforUnit(plc+touchScreen)	●	●

Remark: 1.● Standard Configuration;▲Optional,need costs extra. 2. For the electric control part, if you need the control of storage temperature and air cooler, please specify. 3.The unit does not contain frozen oil.

DS
Series

DS Series Refcom Semi-Hermetic Compressor Water-Cooled Condensing Units

I . Product Overview

1. DS series semi-hermetic condensing unit is mainly used in cold storage projects with large cooling capacity requirements.
2. Adopts Refcomp SW 3H/3L/5L series low screw compressor with single unit and parallel unit. Mainly to meet the +5°C ~ -5°C food preservation,-18°C below low temperature refrigeration and-35°C food quick-frozen use, single nominal power from 40 HP to 190 HP, with a single compressor Group and multi-compressor parallel connection unit;
3. The standard design of the unit adopts water-cooled condensation, utilizing a high-efficiency shell and tube water-cooled condenser, accompanied by a separate liquid reservoir.
4. The standard design of the low-temperature unit includes an external high-efficiency oil separator, economizer system, and oil cooler system, employing a high-efficiency shell and tube oil cooler.
5. The unit utilizes Siemens PLC control and key electrical components from Schneider. It has control and various protection functions for compressor start/stop, capacity adjustment, oil cooling system, economizer system, cooling water pump, and cooling tower fan. Additionally, it is equipped with remote communication capabilities.
6. The unit standard uses R404A or R507A refrigerant.

II . Model Description

DS	B	B	S	–	002	H	/	2

- 2: Number of compressors for unit
- H: Applicable temperature code, H: high temperature, M: medium temperature L: low temperature, J: low-temperature freezing
- 002: Nominal power of compressor (HP)
- S: Cooling form: F: Air-cooled, S: Water-cooled
- B: Refrigerant code, A: R22, B：R404A/R507A
- B: Compressor brand code, R：Refcom
- DS: Product series

DS Series Refcom Semi-Hermetic Compressor Water-Cooled Condensing Units

III. Main Technical Parameters

1. Medium Temperature Units

Unit Model				DSRBS-50M/1	DSRBS-60M/1	DSRBS-75M/1	DSRBS-90M/1	DSRBS-105M/1	DSRBS-115M/1
Power Supply				3P/380V/50Hz					
Apply Temp.				-5℃~5℃					
Comp.	Model			SW3H5000	SW3H6000	SW3H7500	SW3H9000	SW3H10500	SW3H11500
	Number			1	1	1	1	1	1
	Max.I(A)			90	105	124	140	168	182
Capacity /Power (KW)	Evap.	R404A R507A	5℃	156.6/34.8	182.7/40.6	214.0/47.5	247.4/54.9	298.6/66.3	332.0/73.7
			0℃	131.3/35.6	153.2/41.6	179.4/48.7	207.5/56.3	250.4/67.9	278.4/75.6
			-5℃	108.9/36.0	127.0/42.0	148.8/49.2	172.0/56.9	207.6/68.6	230.8/76.3
			-10℃	89.3/35.9	104.2/41.8	122.0/49.0	141.1/56.7	170.3/68.4	189.3/76.0
			-15℃	72.6/35.2	84.7/41.1	99.2/48.1	114.7/55.7	138.5/67.2	154.0/74.7
Condenser	Type of Condenser			Shell And Tube Type					
	Water Row(m^3/h)			28.7	33.5	39.2	45.4	54.7	60.9
	Water Row(inch)			DN80	DN80	DN80	DN80	DN100	DN100
Liquid Line(mm)				Φ28	Φ28	Φ28	Φ35	Φ35	Φ35
Suction Line(mm)				DN50	DN50	DN65	DN65	DN80	DN80
Size	L(mm)			1650	1650	1900	2380	2380	2380
	W(mm)			1000	1000	1000	1100	1100	1100
	H(mm)			1530	1530	1650	1850	1850	1850

※Remarks: The parameters are calibrated as cooling water inlet temperature 30 °C, condensation temperature 40 °C, superheat 10K.

Unit Model				DSRBS-125M/1	DSRBS-140M/1	DSRBS-160M/1	DSRBS-190M/1	DSRBS-100M/2	DSRBS-120M/2
Power Supply				3P/380V/50Hz					
Apply Temp.				-5℃~5℃					
Comp.	Model			SW3H12500	SW3H14000	SW3H16000	SW3H19000	SW3H5000	SW3H6000
	Number			1	1	1	1	2	2
	Max.I(A)			196	249	270	305	2×90	2×105
Capacity /Power (KW)	Evap.	R404A R507A	5℃	356.0/79.0	424.1/110.7	469.5/122.5	538.1/140.4	313.2/69.6	365.4/81.2
			0℃	298.5//81.0	348.6/106.4	385.9/117.8	442.2/135.0	262.6/71.2	306.4/83.2
			-5℃	247.5/81.8	283.8/101.6	314.1/112.4	360.0/128.9	217.8/72.0	254.0/84.0
			-10℃	203.0/81.5	229.1/96.3	253.6/106.6	290.7/122.1	178.6/71.8	208.4/83.6
			-15℃	165.1/80.1	184.0/90.7	203.7/100.4	233.4/115.1	145.2/70.4	169.4/82.2
Condenser	Type of Condenser			Shell And Tube Type					
	Water Row(m^3/h)			65.3	78.2	86.6	99.3	57.4	67.0
	Water Row(inch)			DN100	DN100	DN125	DN125	DN100	DN100
Liquid Line(mm)				Φ35	Φ42	Φ42	Φ42	Φ35	Φ35
Suction Line(mm)				DN80	DN80	DN80	DN80	DN80	DN80
Size	L(mm)			2380	2650	2650	2650	2500	2500
	W(mm)			1100	1200	1200	1200	1650	1650
	H(mm)			1850	1980	1980	1980	1850	1850

※Remarks: The parameters are calibrated as cooling water inlet temperature 30 °C, condensation temperature 40 °C, superheat 10K.

Unit Model				DSRBS-150M/2	DSRBS-180M/2	DSRBS-210M/2	DSRBS-230M/2	DSRBS-250M/2	DSRBS-280M/2
Power Supply				3P/380V/50Hz					
Apply Temp.				-5℃~5℃					
Comp.	Model			SW3H7500	SW3H9000	SW3H10500	SW3H11500	SW3H12500	SW3H14000
	Number			2	2	2	2	2	2
	Max.I(A)			2×124	2×140	2×168	2×182	2×196	2×249
Capacity /Power (KW)	Evap.	R404A R507A	5℃	428.0/95.0	494.8/109.8	597.2/132.6	664.0/147.4	712.0/158.0	848.2/221.4
			0℃	358.8/97.4	415.0/112.6	500.8/135.8	556.8/151.2	597.0/162.0	697.2/212.8
			-5℃	297.6/98.4	344.0/113.8	415.2/137.2	461.6/152.6	495.0/163.6	567.6/203.2
			-10℃	244.0/98.0	282.2/113.4	340.6/136.8	378.6/152.0	406.0/163.0	458.2/192.6
			-15℃	198.4/96.2	229.4/111.4	277.0/134.4	308.0/149.4	330.2/160.2	368.0/181.4
Condenser	Type of Condenser			Shell And Tube Type					
	Water Row(m^3/h)			78.5	90.7	109.5	121.8	130.5	156.5
	Water Row(inch)			DN100	DN125	DN125	DN125	DN125	DN150
Liquid Line(mm)				Φ42	Φ42	DN50	DN50	DN50	DN50
Suction Line(mm)				DN100	DN100	DN100	DN100	DN100	DN125
Size	L(mm)			2500	3000	3000	3000	3000	3000
	W(mm)			1650	1850	1850	1850	1850	1850
	H(mm)			1980	2260	2260	2260	2260	2300

※Remarks: The parameters are calibrated as cooling water inlet temperature 30 °C, condensation temperature 40 °C, superheat 10K.

Unit Model				DSRBS-320M/2	DSRBS-380M/2	DSRBS-150M/3	DSRBS-180M/3	DSRBS-225M/3	DSRBS-270M/3
Power Supply				3P/380V/50Hz					
Apply Temp.				-5℃~5℃					
Comp.	Model			SW3H16000	SW3H19000	SW3H5000	SW3H6000	SW3H7500	SW3H9000
	Number			2	2	3	3	3	3
	Max.I(A)			2×270	2×305	3×90	3×105	3×124	3×140
Capacity /Power (KW)	Evap.	R404A R507A	5℃	939.0/245.0	1076.2/280.8	469.8/104.4	548.1/121.8	642.0/142.5	742.2/164.7
			0℃	771.8/235.6	884.4/270.0	393.9/106.8	459.6/124.8	538.2/146.1	622.5/168.9
			-5℃	628.2/224.8	720.0/257.8	326.7/108.0	381.0/126.0	446.4/147.6	516.0/170.7
			-10℃	507.2/213.2	581.4/244.2	267.9/107.7	312.6/125.4	366.0/147.0	423.3/170.1
			-15℃	407.4/200.8	466.8/230.2	217.8/105.6	254.1/123.3	297.6/144.3	344.1/167.1
Condenser	Type of Condenser			Shell And Tube Type					
	Water Row(m^3/h)			173.2	198.5	86.1	100.5	117.7	136.1
	Water Row(inch)			DN150	DN150	DN100	DN125	DN125	DN125
Liquid Line(mm)				DN50	DN50	Φ42	Φ42	DN50	DN50
Suction Line(mm)				DN125	DN125	2×DN65	2×DN65	2×DN80	2×DN80
Size	L(mm)			3000	3000	3500	3500	3600	3600
	W(mm)			1850	1850	1700	1700	1900	1900
	H(mm)			2300	2300	1850	1850	2280	2280

※Remarks: The parameters are calibrated as cooling water inlet temperature 30 °C, condensation temperature 40 °C, superheat 10K.

Unit Model			DSRBS-315M/3	DSRBS-345M/3	DSRBS-375M/3	DSRBS-420M/3	DSRBS-480M/3	DSRBS-570M/3
Power Supply			3P/380V/50Hz					
Apply Temp.			-5℃~5℃					
Comp.	Model		SW3H10500	SW3H11500	SW3H12500	SW3H14000	SW3H16000	SW3H19000
Comp.	Number		3	3	3	3	3	3
Comp.	Max.I(A)		3×168	3×182	3×196	3×249	3×270	3×305
Capacity /Power (KW)	Evap. R404A R507A	5℃	895.8/198.9	996.0/221.1	1068.0/237.0	1272.3/332.1	1408.5/367.5	1614.3/421.2
Capacity /Power (KW)	Evap. R404A R507A	0℃	751.2/203.7	835.2/226.8	895.5/243.0	1045.8/319.2	1157.7/353.4	1326.6/405.0
Capacity /Power (KW)	Evap. R404A R507A	-5℃	622.8/205.8	692.4/228.9	742.5/245.4	851.4/304.8	942.3/337.2	1080.0/386.7
Capacity /Power (KW)	Evap. R404A R507A	-10℃	510.9/205.2	567.9/228.0	609.0/244.5	687.3/288.9	760.8/319.8	872.1/366.3
Capacity /Power (KW)	Evap. R404A R507A	-15℃	415.5/201.6	462.0/224.1	495.3/240.3	552.0/272.1	611.1/301.2	700.2/345.3
Condenser	Type of Condenser		Shell and Tube Type					
Condenser	Water Row(m^3/h)		164.2	182.6	195.8	234.7	259.9	297.8
Condenser	Water Row(inch)		DN150	DN150	DN150	DN150	DN200	DN200
Liquid Line(mm)			DN50	DN50	DN50	DN65	DN65	DN65
Suction Line(mm)			2×DN80	2×DN100	2×DN100	2×DN125	2×DN125	2×DN125
Size	L(mm)		3600	3600	3600	3850	3850	3850
Size	W(mm)		1900	1900	1900	2000	2000	2000
Size	H(mm)		2280	2280	2280	2380	2380	2380

※Remarks: The parameters are calibrated as cooling water inlet temperature 30 °C, condensation temperature 40 °C, superheat 10K.

Unit Model			DSRBS-200M/4	DSRBS-240M/4	DSRBS-300M/4	DSRBS-360M/4	DSRBS-420M/4	DSRBS-460M/4
Power Supply			3P/380V/50Hz					
Apply Temp.			-5℃~5℃					
Comp.	Model		SW3H5000	SW3H6000	SW3H7500	SW3H9000	SW3H10500	SW3H11500
Comp.	Number		4	4	4	4	4	4
Comp.	Max.I(A)		4×90	4×105	4×124	4×140	4×168	4×182
Capacity /Power (KW)	Evap. R404A R507A	5℃	626.4/139.2	730.8/162.4	856.0/190.0	989.6/219.6	1194.4/265.2	1328.0/294.8
Capacity /Power (KW)	Evap. R404A R507A	0℃	525.2/142.4	612.8/166.4	717.6/194.8	830.0/225.2	1001.6/271.6	1113.6/302.4
Capacity /Power (KW)	Evap. R404A R507A	-5℃	435.6/144.0	508.0/168.0	595.2/196.8	688.0/227.6	830.4/274.4	923.2/305.2
Capacity /Power (KW)	Evap. R404A R507A	-10℃	357.2/143.6	416.8/167.2	488.0/196.0	564.4/226.8	681.2/273.6	757.2/304.0
Capacity /Power (KW)	Evap. R404A R507A	-15℃	290.4/140.8	338.8/164.4	396.8/192.4	458.8/222.8	554.0/268.8	616.0/298.8
Condenser	Type of Condenser		Shell and Tube Type					
Condenser	Water Row(m^3/h)		114.8	134.0	156.9	181.5	219.0	243.5
Condenser	Water Row(inch)		DN125	DN125	DN150	DN150	DN150	DN150
Liquid Line(mm)			DN50	DN50	DN50	DN50	DN65	DN65
Suction Line(mm)			2×DN65	2×DN65	2×DN80	2×DN100	2×DN125	2×DN125
Size	L(mm)		3800	3800	3980	3980	3980	3980
Size	W(mm)		1700	1700	1900	1900	1900	1900
Size	H(mm)		1850	1850	2280	2280	2280	2280

※Remarks: The parameters are calibrated as cooling water inlet temperature 30 °C, condensation temperature 40 °C, superheat 10K.

2. Low Temperature Units

Unit Model			DSRBS-40L/1	DSRBS-50L/1	DSRBS-60L/1	DSRBS-70L/1	DSRBS-80L/1	DSRBS-95L/1
Power Supply			3P/380V/50Hz					
Apply Temp.			-18℃~35℃					
Comp.	Model		SW3L4000	SW3L5000	SW3L6000	SW3L7000	SW3L8000	SW3L9500
Comp.	Number		1	1	1	1	1	1
Comp.	Max.I(A)		80	88	103	117	139	154
Capacity /Power (KW)	Evap. R404A R507A	-25℃	63.1/36.8	72.1/40.9	84.2/48.9	95.4/55.7	117.5/68.2	128.6/74.5
Capacity /Power (KW)	Evap. R404A R507A	-30℃	52.8/36.1	60.3/40.0	69.9/46.6	79.4/53.2	98.2/65.5	107.6/71.5
Capacity /Power (KW)	Evap. R404A R507A	-35℃	43.3/35.4	49.5/39.3	57.2/44.5	64.9/50.8	80.7/62.9	88.6/68.7
Capacity /Power (KW)	Evap. R404A R507A	-40℃	34.7/34.8	39.7/38.5	45.7/42.5	51.9/48.6	65.0/60.6	71.3/66.2
Capacity /Power (KW)	Evap. R404A R507A	-45℃	27.1/34.4	30.9/38.0	35.7/41.1	40.6/46.9	51.0/58.8	56.0/64.3
Condenser	Type of Condenser		Shell and Tube Type					
Condenser	Water Row(m^3/h)		28.6	32.4	38.1	43.3	53.2	58.2
Condenser	Water Row(inch)		DN80	DN80	DN80	DN80	DN80	DN100
Oil Cooler Type			Shell and Tube Type					
Oil Cooler Nozzle(inch)			DN25	DN25	DN32	DN32	DN32	DN32
Liquid Line(mm)			Φ28	Φ28	Φ28	Φ28	Φ28	Φ35
Suction Line(mm)			DN50	DN50	DN65	DN65	DN80	DN80
Size	L(mm)		1650	1650	1650	1650	1900	1900
Size	W(mm)		1000	1000	1000	1000	1100	1100
Size	H(mm)		1530	1530	1650	1650	1750	1750

※Remarks: The parameters are calibrated as cooling water inlet temperature 30 °C, condensation temperature 40 °C, superheat 10K.

Unit Model			DSRBS-105L/1	DSRBS-115L/1	DSRBS-130L/1	DSRBS-160L/1	DSRBS-80L/2	DSRBS-100L/2
Power Supply			3P/380V/50Hz					
Apply Temp.			-18℃~35℃					
Comp.	Model		SW3L10500	SW3L11500	SW3L13000	SW3L16000	SW3L4000	SW3L5000
Comp.	Number		1	1	1	1	2	2
Comp.	Max.I(A)		163	196	210	236	2×80	2×88
Capacity /Power (KW)	Evap. R404A R507A	-25℃	135.1/78.9	167.7/96.7	185.5/105.6	214.6/120.9	126.2/73.6	144.2/81.8
Capacity /Power (KW)	Evap. R404A R507A	-30℃	113.3/75.9	142.1/95.9	157.0/104.4	183.7/121.3	105.6/72.2	120.6/80.0
Capacity /Power (KW)	Evap. R404A R507A	-35℃	93.4/73.0	118.3/95.3	130.7/103.4	154.2/122.1	86.6/70.8	99.0/78.6
Capacity /Power (KW)	Evap. R404A R507A	-40℃	75.3/70.5	96.2/94.6	106.1/102.3	126.2/122.6	69.4/69.6	79.4/77.0
Capacity /Power (KW)	Evap. R404A R507A	-45℃	59.2/68.4	76.0/94.0	83.7/101.4	100.3/123.4	54.2/68.8	61.8/76.0
Condenser	Type of Condenser		Shell and Tube Type					
Condenser	Water Row(m^3/h)		61.3	75.8	83.4	96.2	57.3	64.8
Condenser	Water Row(inch)		DN100	DN100	DN100	DN125	DN100	DN100
Oil Cooler Type			Shell and Tube Type					
Oil Cooler Nozzle(inch)			DN32	DN32	DN32	DN50	DN32	DN32
Liquid Line(mm)			Φ35	Φ35	Φ35	Φ42	Φ35	Φ35
Suction Line(mm)			DN80	DN80	DN80	DN80	DN80	DN80
Size	L(mm)		1900	2380	2380	2380	2500	2500
Size	W(mm)		1100	1200	1200	1200	1850	1850
Size	H(mm)		1750	1950	1950	1950	1950	1950

※Remarks: The parameters are calibrated as cooling water inlet temperature 30 °C, condensation temperature 40 °C, superheat 10K.

DS Series Refcom Semi-Hermetic Compressor Water-Cooled Condensing Units

Unit Model				DSRBS-120L/2	DSRBS-140L/2	DSRBS-160L/2	DSRBS-190L/2	DSRBS-210L/2	DSRBS-230L/2
Power Supply				3P/380V/50Hz					
Apply Temp.				-18℃～35℃					
Comp.	Model			SW3L6000	SW3L7000	SW3L8000	SW3L9500	SW3L10500	SW3L11500
	Number			2	2	2	2	2	2
	Max.I(A)			2×103	2×117	2×139	2×154	2×163	2×196
Capacity /Power (KW)	Evap.	R404A R507A	-25℃	168.4/97.8	190.8/111.4	235.0/136.4	257.2/149.0	270.2/157.8	335.4/193.4
			-30℃	139.8/93.2	158.8/106.4	196.4/131.0	215.2/143.0	226.6/151.8	284.2/191.8
			-35℃	114.4/89.0	129.8/101.6	161.4/125.8	177.2/137.4	186.8/146.0	236.6/190.6
			-40℃	91.4/85.0	103.8/97.2	130.0/121.2	142.6/132.4	150.6/141.0	192.4/189.2
			-45℃	71.4/82.2	81.2/93.8	102.0/117.6	112.0/128.6	118.4/136.8	152.0/188.0
Condenser	Type of Condenser			Shell and Tube Type					
	Water Row(m³/h)			76.3	86.6	106.4	116.4	122.7	151.6
	Water Row(inch)			DN100	DN100	DN125	DN125	DN125	DN150
Oil Cooler Type				Shell and Tube Type					
Oil Cooler Nozzle(inch)				DN32	DN32	DN50	DN50	DN50	DN50
Liquid Line(mm)				Φ35	Φ35	Φ42	Φ42	Φ42	DN50
Suction Line(mm)				DN100	DN100	DN100	DN100	DN100	DN125
Size	L(mm)			2500	2500	2500	2500	2500	3000
	W(mm)			1850	1850	1850	1850	1850	2000
	H(mm)			2090	2090	2190	2190	2190	2280

※Remarks: The parameters are calibrated as cooling water inlet temperature 30 °C, condensation temperature 40 °C, superheat 10K.

Unit Model				DSRBS-260L/2	DSRBS-320L/2	DSRBS-120L/3	DSRBS-150L/3	DSRBS-180L/3	DSRBS-210L/3
Power Supply				3P/380V/50Hz					
Apply Temp.				-18℃～35℃					
Comp.	Model			SW3L13000	SW3L16000	SW3L4000	SW3L5000	SW3L6000	SW3L7000
	Number			2	2	3	3	3	3
	Max.I(A)			2×210	2×236	3×80	3×88	3×103	3×117
Capacity /Power (KW)	Evap.	R404A R507A	-25℃	371.0/211.2	429.2/241.8	189.3/110.4	216.3/122.7	252.6/146.7	286.2/167.1
			-30℃	314.0/208.8	367.4/242.6	158.4/108.3	180.9/120.0	209.7/139.8	238.2/159.6
			-35℃	261.4/206.8	308.4/244.2	129.9/106.2	148.5/117.9	171.6/133.5	194.7/152.4
			-40℃	212.2/204.6	252.4/245.2	104.1/104.4	119.1/115.5	137.1/127.5	155.7/145.8
			-45℃	167.4/202.8	200.6/246.8	81.3/103.2	92.7/114.0	107.1/123.3	121.8/140.7
Condenser	Type of Condenser			Shell and Tube Type					
	Water Row(m³/h)			166.9	192.3	85.9	97.2	114.4	129.9
	Water Row(inch)			DN150	DN150	DN100	DN125	DN125	DN125
Oil Cooler Type				Shell and Tube Type					
Oil Cooler Nozzle(inch)				DN50	DN50	DN32	DN50	DN50	DN50
Liquid Line(mm)				DN50	DN50	Φ35	Φ42	Φ42	Φ42
Suction Line(mm)				DN125	DN125	2×DN65	2×DN65	2×DN80	2×DN80
Size	L(mm)			3000	3000	3000	3000	2500	2500
	W(mm)			2000	2000	1850	1850	1850	1850
	H(mm)			2280	2280	1950	1950	2190	2190

※Remarks: The parameters are calibrated as cooling water inlet temperature 30 °C, condensation temperature 40 °C, superheat 10K.

Unit Model				DSRBS-240L/4	DSRBS-285L/4	DSRBS-315L/4	DSRBS-345L/4	DSRBS-390L/4	DSRBS-480L/4
Power Supply				3P/380V/50Hz					
Apply Temp.				-18℃～35℃					
Comp.	Model			SW3L8000	SW3L9500	SW3L10500	SW3L11500	SW3L13000	SW3L16000
	Number			3	3	3	3	3	3
	Max.I(A)			3×139	3×154	3×163	3×196	3×210	3×236
Capacity /Power (KW)	Evap.	R404A R507A	-25℃	352.5/204.6	385.8/223.5	405.3/236.7	503.1/290.1	556.5/316.8	643.8/362.7
			-30℃	294.6/196.5	322.8/214.5	339.9/227.7	426.3/287.7	471.0/313.2	551.1/363.9
			-35℃	242.1/188.7	265.8/206.1	280.2/219.0	354.9/285.9	392.1/310.2	462.6/366.3
			-40℃	195.0/181.8	213.9/198.6	225.9/211.5	288.6/283.6	318.3/306.9	378.6/367.8
			-45℃	153.0/176.4	168.0/192.9	177.6/205.2	228.0/282.0	251.1/304.2	300.9/370.2
Condenser	Type of Condenser			Shell and Tube Type					
	Water Row(m³/h)			159.7	174.6	184.0	227.3	250.3	288.5
	Water Row(inch)			DN150	DN150	DN150	DN150	DN200	DN200
Oil Cooler Type				Shell and Tube Type					
Oil Cooler Nozzle(inch)				DN50	DN50	DN50	DN65	DN65	DN65
Liquid Line(mm)				DN50	DN50	DN50	DN65	DN65	DN65
Suction Line(mm)				2×DN100	2×DN100	2×DN100	2×DN125	2×DN125	2×DN125
Size	L(mm)			3000	3000	3000	3600	3600	3600
	W(mm)			1850	1850	1850	2000	2000	2000
	H(mm)			2290	2290	2290	2380	2380	2380

※Remarks: The parameters are calibrated as cooling water inlet temperature 30 °C, condensation temperature 40 °C, superheat 10K.

Unit Model				DSRBS-320L/4	DSRBS-380L/4	DSRBS-420L/4	DSRBS-460L/4	DSRBS-520L/4	DSRBS-640L/4
Power Supply				3P/380V/50Hz					
Apply Temp.				-18℃～35℃					
Comp.	Model			SW3L8000	SW3L9500	SW3L10500	SW3L11500	SW3L13000	SW3L16000
	Number			4	4	4	4	4	4
	Max.I(A)			4×139	4×154	4×163	4×196	4×210	4×236
Capacity /Power (KW)	Evap.	R404A R507A	-25℃	470.0/272.8	514.4/298.0	540.4/315.6	670.8/386.8	742.0/422.4	858.4/483.6
			-30℃	392.8/262.0	430.4/286.0	453.2/303.6	568.4/383.6	628.0/417.6	734.8/485.2
			-35℃	322.8/251.6	354.4/274.8	373.6/292.0	473.2/381.2	522.8/413.6	616.8/488.4
			-40℃	260.0/242.4	285.2/264.8	301.2/282.0	384.8/378.4	424.4/409.2	504.8/490.4
			-45℃	204.0/235.2	224.0/257.2	236.8/273.6	304.0/376.0	334.8/405.6	401.2/493.6
Condenser	Type of Condenser			Shell and Tube Type					
	Water Row(m³/h)			212.9	232.8	245.3	303.1	333.7	384.6
	Water Row(inch)			DN150	DN150	DN150	DN200	DN200	DN200
Oil Cooler Type				Shell and Tube Type					
Oil Cooler Nozzle(inch)				DN50	DN50	DN50	DN65	DN65	DN65
Liquid Line(mm)				DN50	DN50	DN50	DN65	DN65	DN65
Suction Line(mm)				2×DN100	2×DN100	2×DN100	2×DN125	2×DN125	2×DN125
Size	L(mm)			3600	3600	3600	4200	4200	4200
	W(mm)			1850	1850	1850	2150	2150	2150
	H(mm)			2290	2290	2290	2380	2380	2380

※Remarks: The parameters are calibrated as cooling water inlet temperature 30 °C, condensation temperature 40 °C, superheat 10K.

3. Low Temperature Freezing Units

Unit Model				DSRBS-50J/1	DSRBS-60J/1	DSRBS-70J/1	DSRBS-75J/1	DSRBS-90J/1	DSRBS-100J/1
Power Supply				3P/380V/50Hz					
Apply Temp.				-18℃~40℃					
Comp.	Model			SW5L050	SW5L060	SW5L070	SW5L075	SW5L090	SW5L100
	Number			1	1	1	1	1	1
	Max.I(A)			80	105	120	135	142	154
Capacity /Power (KW)	Evap.	R404A R507A	-25℃	75.5/42.9	91.4/53.1	103.5/59.2	111.9/63.1	143.7/81.2	158.6/89.7
			-30℃	63.4/43.0	76.7/53.2	86.5/59.2	93.9/63.2	120.3/81.2	132.8/89.9
			-35℃	52.0/43.0	62.9/53.4	70.9/59.6	77.1/63.4	98.7/81.6	108.9/90.5
			-40℃	41.8/43.4	50.4/53.8	56.8/60.0	61.7/63.8	79.1/82.2	87.2/91.3
			-45℃	33.0/43.9	39.8/54.5	44.7/60.7	48.7/64.6	62.4/83.4	68.7/92.3
Condenser	Type of Condenser			Shell and Tube Type					
	Water Row(m³/h)			33.9	41.4	46.6	50.2	64.5	71.2
	Water Row(inch)			DN80	DN80	DN80	DN80	DN100	DN100
Oil Cooler Type				Shell and Tube Type					
Oil Cooler Nozzle(inch)				DN25	DN25	DN32	DN32	DN32	DN32
Liquid Line(mm)				Φ28	Φ28	Φ28	Φ28	Φ35	Φ35
Suction Line(mm)				DN50	DN80	DN80	DN80	DN80	DN80
Size	L(mm)			1650	1650	1650	1650	1900	1900
	W(mm)			1000	1000	1000	1000	1100	1100
	H(mm)			1530	1650	1650	1650	1750	1750

※Remarks: The parameters are calibrated as cooling water inlet temperature 30 °C, condensation temperature 40 °C, superheat 10K.

Unit Model				DSRBS-110J/1	DSRBS-125J/1	DSRBS-140J/1	DSRBS-150J/1	DSRBS-100J/2	DSRBS-120J/2
Power Supply				3P/380V/50Hz					
Apply Temp.				-18℃~40℃					
Comp.	Model			SW5L110	SW5L125	SW5L140	SW5L150	SW5L050	SW5L060
	Number			1	1	1	1	2	2
	Max.I(A)			170	185	200	220	2×80	2×105
Capacity /Power (KW)	Evap.	R404A R507A	-25℃	168.3/93.9	190.5/102.1	201.8/107.2	235.7/123.2	151.0/85.8	182.8/106.2
			-30℃	141.3/94.2	159.9/102.1	169.4/106.9	197.3/123.0	126.8/86.0	153.4/106.4
			-35℃	115.9/94.5	131.5/102.5	139.7/107.4	162.3/123.7	104.0/86.0	125.8/106.8
			-40℃	92.8/95.1	105.6/103.2	112.2/108.0	130.0/124.4	83.6/86.8	100.8/107.6
			-45℃	73.2/96.2	83.4/104.3	88.8/109.3	102.6/125.8	66.0/87.8	79.6/109.0
Condenser	Type of Condenser			Shell and Tube Type					
	Water Row(m³/h)			75.2	83.9	88.6	102.9	67.9	82.8
	Water Row(inch)			DN100	DN100	DN100	DN125	DN100	DN100
Oil Cooler Type				Shell and Tube Type					
Oil Cooler Nozzle(inch)				DN32	DN32	DN50	DN50	DN32	DN32
Liquid Line(mm)				Φ35	Φ35	Φ42	Φ42	Φ35	Φ35
Suction Line(mm)				DN80	DN100	DN100	DN100	DN80	DN100
Size	L(mm)			1900	2380	2380	2380	2500	2500
	W(mm)			1100	1200	1200	1200	1850	1850
	H(mm)			1750	1950	1950	1950	1950	2090

※Remarks: The parameters are calibrated as cooling water inlet temperature 30 °C, condensation temperature 40 °C, superheat 10K.

Unit Model				DSRBS-140J/2	DSRBS-150J/2	DSRBS-180J/2	DSRBS-200J/2	DSRBS-220J/2	DSRBS-250J/2
Power Supply				3P/380V/50Hz					
Apply Temp.				-18℃~40℃					
Comp.	Model			SW5L070	SW5L075	SW5L090	SW5L100	SW5L110	SW5L125
	Number			2	2	2	2	2	2
	Max.I(A)			2×120	2×135	2×142	2×154	2×170	2×185
Capacity /Power (KW)	Evap.	R404A R507A	-25℃	207.0/118.4	223.8/126.2	287.4/162.4	317.2/179.4	336.6/187.8	381.0/204.2
			-30℃	173.0/118.4	187.8/126.4	240.6/162.4	265.6/179.8	282.6/188.4	319.8/204.2
			-35℃	141.8/119.2	154.2/126.8	197.4/163.2	217.8/181.0	231.8/189.0	263.0/205.0
			-40℃	113.6/120.0	123.4/127.6	158.2/164.4	174.4/182.6	185.6/190.2	211.2/206.4
			-45℃	89.4/121.4	97.4/129.2	124.8/166.8	137.4/184.6	146.4/192.4	166.8/208.6
Condenser	Type of Condenser			Shell and Tube Type					
	Water Row(m³/h)			93.3	100.3	128.9	142.3	150.4	167.7
	Water Row(inch)			DN125	DN125	DN125	DN125	DN125	DN150
Oil Cooler Type				Shell and Tube Type					
Oil Cooler Nozzle(inch)				DN50	DN50	DN50	DN50	DN50	DN50
Liquid Line(mm)				Φ42	Φ42	Φ42	Φ42	Φ42	DN50
Suction Line(mm)				DN100	DN100	DN100	DN100	DN100	DN125
Size	L(mm)			2500	2500	2500	2500	2500	3000
	W(mm)			1850	1850	1850	1850	1850	2000
	H(mm)			2090	2090	2190	2190	2190	2280

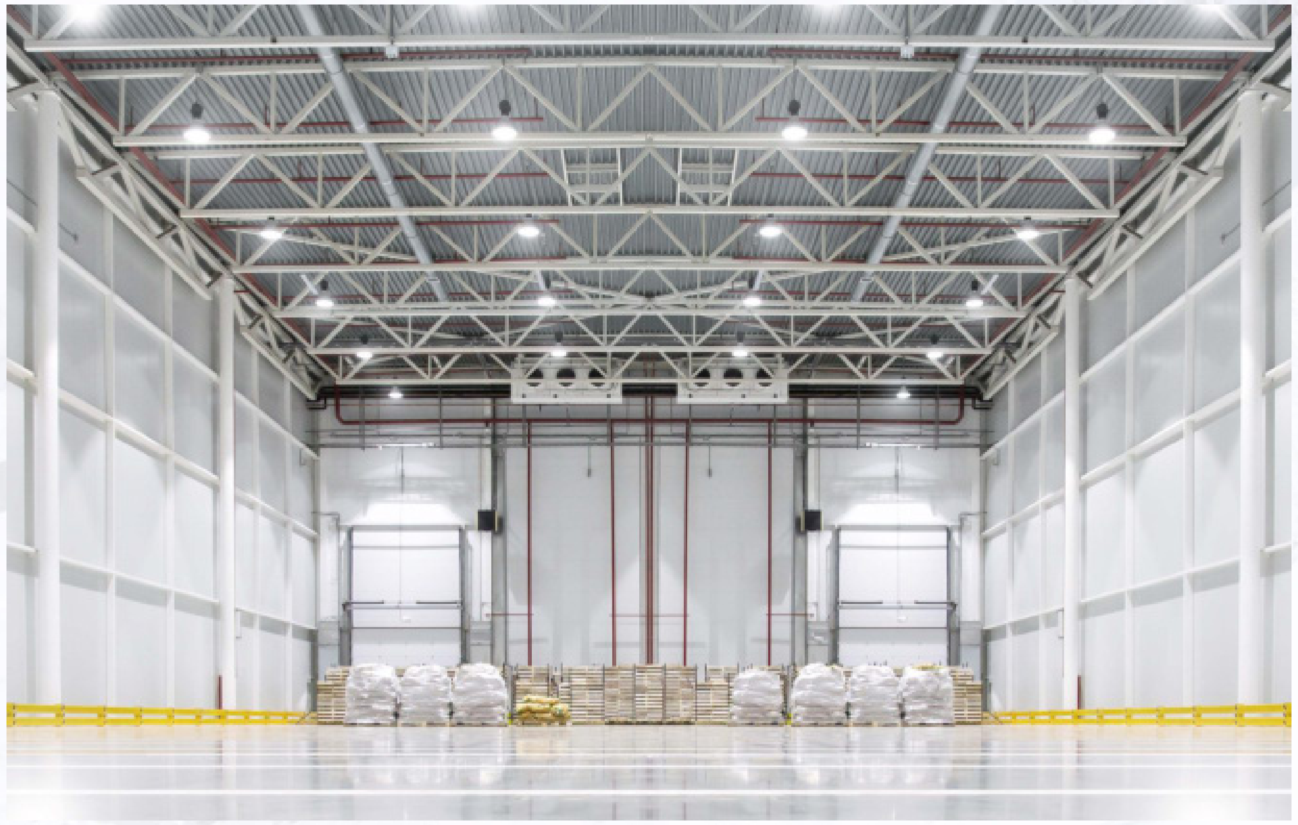
※Remarks: The parameters are calibrated as cooling water inlet temperature 30 °C, condensation temperature 40 °C, superheat 10K.

Unit Model				DSRBS-280J/2	DSRBS-300J/2	DSRBS-150J/3	DSRBS-180J/3	DSRBS-210J/3	DSRBS-225J/3
Power Supply				3P/380V/50Hz					
Apply Temp.				-18℃~40℃					
Comp.	Model			SW5L140	SW5L150	SW5L050	SW5L060	SW5L070	SW5L075
	Number			2	2	3	3	3	3
	Max.I(A)			2×200	2×200	3×80	3×105	3×120	3×135
Capacity /Power (KW)	Evap.	R404A R507A	-25℃	403.6/214.4	471.4/246.4	226.5/128.7	274.2/159.3	310.5/177.6	335.7/189.3
			-30℃	338.8/213.8	394.6/246.0	190.2/129.0	230.1/159.6	259.5/177.6	281.7/189.6
			-35℃	279.4/214.8	324.6/247.4	156.0/129.0	188.7/160.2	212.7/178.8	231.3/190.2
			-40℃	224.4/216.0	260.0/248.8	125.4/130.2	151.2/161.4	170.4/180.0	185.1/191.4
			-45℃	177.6/218.6	205.2/251.6	99.0/131.7	119.4/163.5	134.1/182.1	146.1/193.8
Condenser	Type of Condenser			Shell and Tube Type					
	Water Row(m³/h)			177.1	205.7	101.8	124.2	139.9	150.5
	Water Row(inch)			DN150	DN150	DN125	DN125	DN125	DN125
Oil Cooler Type				Shell and Tube Type					
Oil Cooler Nozzle(inch)				DN50	DN50	DN32	DN50	DN50	DN50
Liquid Line(mm)				DN50	DN50	Φ35	Φ42	Φ42	Φ42
Suction Line(mm)				DN125	DN125	2×DN65	2×DN80	2×DN80	2×DN80
Size	L(mm)			3000	3000	3000	2500	2500	2500
	W(mm)			2000	2000	1850	1850	1850	1850
	H(mm)			2280	2280	1950	2190	2190	2190

※Remarks: The parameters are calibrated as cooling water inlet temperature 30 °C, condensation temperature 40 °C, superheat 10K.

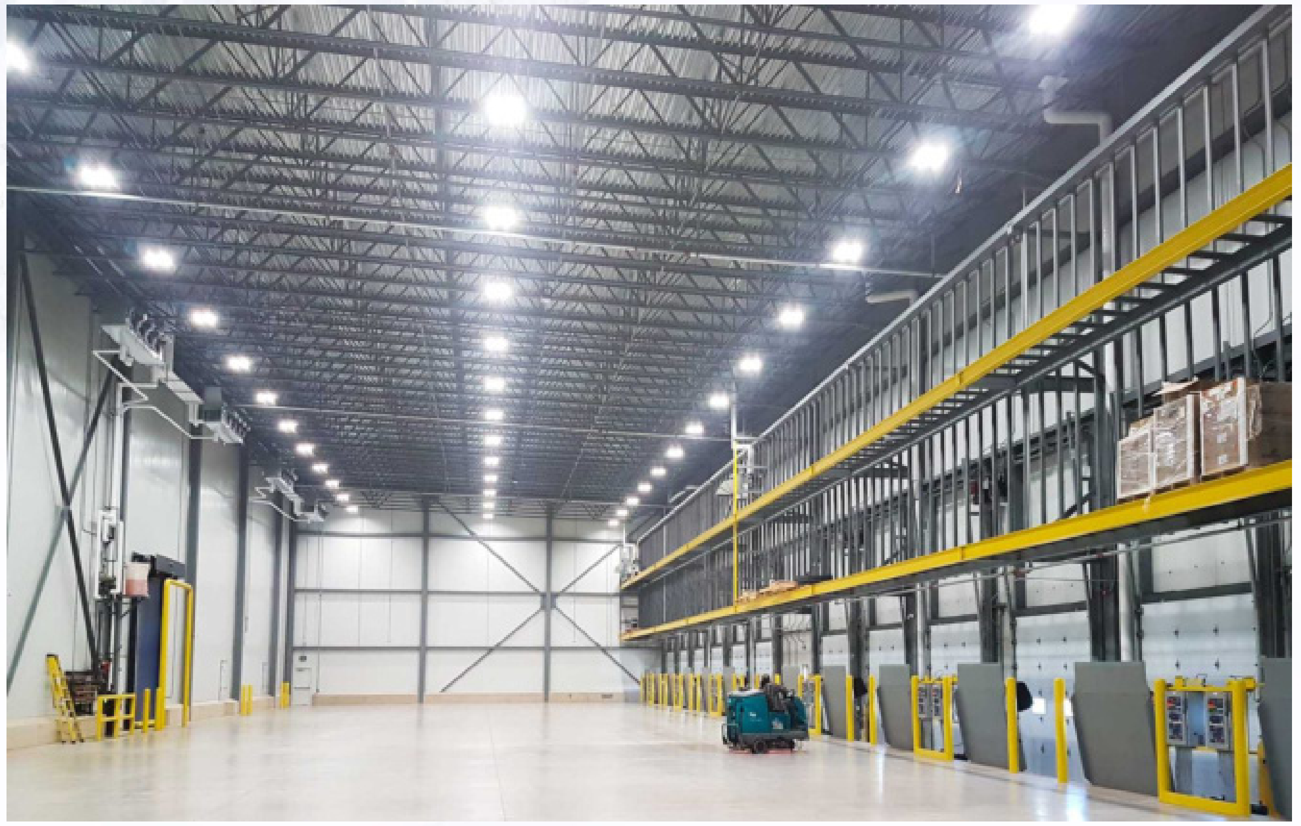
Unit Model				DSRBS-270J/4	DSRBS-300J/4	DSRBS-330J/4	DSRBS-375J/4	DSRBS-420J/4	DSRBS-450J/4
Power Supply				3P/380V/50Hz					
Apply Temp.				-18°C~40°C					
Comp.	Model			SW5L090	SW5L100	SW5L110	SW5L125	SW5L140	SW5L150
	Number			3	3	3	3	3	3
	Max.l(A)			3×142	3×154	3×170	3×185	3×200	3×220
Capacity /Power (KW)	Evap.	R404A R507A	-25°C	431.1/243.6	475.8/269.1	504.9/281.7	571.5/306.3	605.4/321.6	707.1/369.6
			-30°C	360.9/243.6	398.4/269.7	423.9/282.6	479.7/306.3	508.2/320.7	591.9/369.0
			-35°C	296.1/244.8	326.7/271.5	347.7/283.5	394.5/307.5	419.1/322.2	486.9/371.1
			-40°C	237.3/246.6	261.6/273.9	278.4/285.3	316.8/309.6	336.6/324.0	390.0/373.2
			-45°C	187.2/250.2	206.1/276.9	219.6/288.6	250.2/312.9	266.4/327.9	307.8/377.4
Condenser	Type of Condenser			Shell and Tube Type					
	Water Row(m^3/h)			193.4	213.5	225.5	251.6	265.7	308.6
	Water Row(inch)			DN150	DN150	DN150	DN200	DN200	DN200
Oil Cooler Type				Shell and Tube Type					
Oil Cooler Nozzle(inch)				DN50	DN50	DN50	DN65	DN65	DN65
Liquid Line(mm)				DN50	DN50	DN50	DN65	DN65	DN65
Suction Line(mm)				2×DN100	2×DN100	2×DN100	2×DN125	2×DN125	2×DN125
Size	L(mm)			3000	3000	3000	3600	3600	3600
	W(mm)			1850	1850	1850	2000	2000	2000
	H(mm)			2290	2290	2290	2380	2380	2380

※Remarks: The parameters are calibrated as cooling water inlet temperature 30 °C, condensation temperature 40 °C, superheat 10K.



Unit Model				DSRBS-360J/4	DSRBS-400J/4	DSRBS-440J/4	DSRBS-500J/4	DSRBS-560J/4	DSRBS-600J/4
Power Supply				3P/380V/50Hz					
Apply Temp.				-18°C~40°C					
Comp.	Model			SW5L090	SW5L100	SW5L110	SW5L125	SW5L140	SW5L150
	Number			4	4	4	4	4	4
	Max.l(A)			4×142	4×154	4×170	4×185	4×200	4×220
Capacity /Power (KW)	Evap.	R404A R507A	-25°C	574.8/324.8	634.4/358.8	673.2/375.6	762.0/408.4	807.2/428.6	942.8/492.8
			-30°C	481.2/324.8	531.2/359.6	565.2/376.8	639.6/408.4	677.6/427.6	789.2/492.0
			-35°C	394.8/326.4	435.6/362.0	463.6/378.0	526.0/410.0	558.8/429.6	649.2/494.8
			-40°C	316.4/328.8	348.8/365.2	371.2/380.4	422.4/412.8	448.8/432.0	520.0/497.6
			-45°C	249.6/333.6	274.8/369.2	292.8/384.8	333.6/417.2	355.2/437.2	410.4/503.2
Condenser	Type of Condenser			Shell and Tube Type					
	Water Row(m^3/h)			257.8	284.7	300.6	335.5	354.2	411.5
	Water Row(inch)			DN150	DN200	DN200	DN200	DN200	DN200
Oil Cooler Type				Shell and Tube Type					
Oil Cooler Nozzle(inch)				DN50	DN50	DN50	DN65	DN65	DN65
Liquid Line(mm)				DN50	DN50	DN50	DN65	DN65	DN65
Suction Line(mm)				2×DN100	2×DN100	2×DN100	2×DN125	2×DN125	2×DN125
Size	L(mm)			3600	3600	3600	4200	4200	4200
	W(mm)			1850	1850	1850	2150	2150	2150
	H(mm)			2290	2290	2290	2380	2380	2380

※Remarks: The parameters are calibrated as cooling water inlet temperature 30 °C, condensation temperature 40 °C, superheat 10K.



XH series high-efficiency ceiling-type air cooler

I . Product Overview

1. Enclosure: High-quality galvanized steel plate sprayed with powder coating (silver gray RAL9006), with desirable corrosion resistance, both the side plates and the outer water tray plate are designed with hinged structure, which is convenient to operate;
2. The side sheet of the heat exchanger is made of aluminum plate, which can effectively protect the copper tube and reduce the weight;
3. Double drain trays design: The outer water tray is designed with edge structure with angle, which makes the water drain smoothly without any dead angle, the inner water tray is designed with sink structure made of aluminum plate, and the condensed water or defrost water is directly discharged into the drainage outlet of the outer water tray through the inner water tray;
4. Designed with overall stretching, large arc high air tube, it has the characteristics of excellent air guiding effect;
5. For fans with a diameter of 500, there are floor supports for easy installation;
6. Coil: Tube spacing 38.1 x33 in triangle arrangement, with high heat transfer efficiency,
7. Corrugated aluminum sheet made of hydrophilic aluminum foil, with the sheet spacing of 4.5mm, 6.0mm and 9.0mm to meet the requirements of different temperatures and humidity;
8. Fan: High-power external rotor fan, operating temperature: -30°C ~ 60 °C: fan specifications: ϕ350, ϕ400, ϕ500, product series of different specifications, giving users more choices;
9. Defrosting: The electric defrosting is adopted in the standard manner, and the stainless steel heating tubes are distributed in the coil fins, which can bring about desirable defrosting effect; the steam defrosting can be adopted as required by the customer;
10. The lP65 waterproof junction box and waterproof connectors are used, with better waterproofing; the fan and the heating pipe are wired separately, which can lead to high reliability;
11. The outlet of the air cooler is equipped with a needle valve, which is convenient for users to test the pressure;
12. It is subjected to strict pressure test at the pressure of 23 bar
13. The expansion valves, heating band of fan tube and other parts can be preinstalled according to customer's needs;
14. It is compatible with R404A, R507A, R448A, R449A, R134A, R22 and other refrigerants.

IV. Performance Datasheet

Fin pitch 4.0mm

Model		Refrigeration capacity/R404A(KW)		Area	Circuit volume	Air volume	Air throw	Connection specifications(mm)			Weight
		Tc=0°C △T=8K	Tc=10°C △T=10K	m²	dm³	m³/h	m	Liquid inlet	Suction gas line	Drainage	kg
350 fan series	XH2.7/351-LA	2.7	3.7	9.8	2.2	2050	7	Φ12	Φ22	G1"	36
	XH3.4/351-LA	3.4	4.7	13.1	2.9	1850	7	Φ12	Φ22	G1"	37
	XH5.5/352-LA	5.5	7.6	19.7	4.0	4100	9	Φ12	Φ22	G1"	56
	XH6.7/352-LA	6.7	9.2	26.3	5.3	3700	9	Φ12	Φ22	G1"	59
	XH8.2/353-LA	8.2	11.3	29.5	5.8	6150	10	Φ12	Φ22	G1"	77
	XH10.1/353-LA	10.1	13.9	39.4	7.8	5550	10	Φ12	Φ22	G1"	81
	XH11/354-LA	11.0	15.2	39.4	7.7	8200	11	Φ12	Φ22	G1"	98
	XH13.4/354-LA	13.4	18.5	52.6	10.2	7400	11	Φ16	Φ28	G1"	104
400 fan series	XH5.6/401-LA	5.6	7.7	21.0	4.5	3600	11	Φ12	Φ22	G1"	47
	XH7.4/401-LA	7.4	10.2	31.5	6.7	2950	11	Φ12	Φ22	G1"	52
	XH11.2/402-LA	11.2	15.5	42.0	8.4	7200	12	Φ16	Φ28	G1.5"	77
	XH14.7/402-LA	14.7	20.3	63.0	12.6	5900	12	Φ16	Φ28	G1.5"	86
	XH16.8/403-LA	16.8	23.2	63.0	12.3	10800	13	Φ22	Φ35	G1.5"	106
	XH22.1/403-LA	22.1	30.5	94.5	18.4	8850	13	Φ22	Φ35	G1.5"	120
	XH22.4/404-LA	22.4	30.9	84.1	16.2	14400	14	Φ22	Φ35	G1.5"	132
	XH29.4/404-LA	29.4	40.6	126.1	24.3	11800	14	Φ22	Φ42	G1.5"	151
500 fan series	XH10.6/501-LA	10.6	14.6	35.5	7.2	6500	17	Φ16	Φ28	G1.5"	78
	XH13/501-LA	13.0	17.9	53.2	10.8	5400	16	Φ16	Φ28	G1.5"	86
	XH21.3/502-LA	21.3	29.4	70.9	13.8	13000	19	Φ22	Φ35	G1.5"	124
	XH26/502-LA	26.0	35.9	106.4	20.7	10800	18	Φ22	Φ35	G1.5"	139
	XH31.9/503-LA	31.9	44.0	106.4	20.4	19500	21	Φ22	Φ42	G2"	171
	XH39/503-LA	39.0	53.8	159.6	30.7	16200	20	Φ28	Φ50	G2"	194
	XH42.6/504-LA	42.6	58.8	141.8	27.0	26000	22	Φ28	Φ50	G2"	219
	XH52/504-LA	52.0	71.8	212.8	40.6	21600	21	Φ28	Φ50	G2"	251

※1)Tc in the table is the store temperature;△T is the heat transfer temperature difference, that is, the difference between the store temperature and the evaporation temperature.
2) The air throw is 0.5m/s of air supply distance at room temperature. 3)For the refrigeration capacity in other working conditions, refer to the correction coefficient.

II. Model Description

XH | 2.7 | / | 35 | 1 | - | L | A

- Voltage，A: 3P/380V/50HZ,B: 1P/220V/50HZ
- Pitch code,L: 4.5mm，D: 6.0mm，J: 9.0mm
- Quantity of fans
- Fan diameter (cm)
- Nominal Heat Transfer Rate
- Product series code

III.Standard and Optional Components

Component		Configuration	Component		Configuration
Enclosure	Powder coated aluminum plate	×	Defrost	Air defrost	○
	Powder coated steel plate	○		Electric defrost	●
	Powder coated galvanized sheet	●		Hot gas defrost (coil & tray)	○
	Stainless steel plate*	○	Expansion valve		○
Motor	Weiguang external rotor motor	●	Drain heater		○
	EBM external rotor motor*	○	Fan tube heater		○
	Air tube fan	○			
Aluminum foil	Normal aluminium foil	○			
	Hydrophilic aluminum foil (blue foil)	●			

Fin pitch 6.0mm

Model		Refrigeration capacity/R404A(KW)		Area	Circuit volume	Air volume	Air throw	Connection specifications(mm)			Weight
		Tc=0°C △T=8K	Tc=-18°C △T=7K	m²	dm³	m³/h	m	Liquid inlet	Suction gas line	Drainage	kg
350 fan series	XH0.6/351-DA	2.1	1.6	7.5	2.2	2100	8	Φ12	Φ22	G1"	35
	XH2.1/351-DA	2.6	2.1	10.0	2.9	1900	8	Φ12	Φ22	G1"	37
	XH3.3/352-DA	4.2	3.3	15.0	4.0	4200	10	Φ12	Φ22	G1"	55
	XH4.2/352-DA	5.2	4.2	20.0	5.3	3800	10	Φ12	Φ22	G1"	58
	XH5/353-DA	6.3	5	22.6	5.8	6300	11	Φ12	Φ22	G1"	75
	XH6.2/353-DA	7.8	6.2	30.0	7.8	5700	11	Φ12	Φ22	G1"	79
	XH6.7/354-DA	8.4	6.7	30.0	7.7	8400	12	Φ12	Φ22	G1"	97
	XH8.3/354-DA	10.4	8.3	40.1	10.2	7600	12	Φ16	Φ28	G1"	102
400 fan series	XH3.4/401-DA	4.2	3.4	16.1	4.5	3700	12	Φ12	Φ22	G1"	47
	XH4.4/401-DA	5.5	4.4	24.1	6.7	3200	12	Φ12	Φ22	G1"	51
	XH6.6/402-DA	8.3	6.6	32.1	8.4	7400	13	Φ16	Φ28	G1.5"	75
	XH8.9/402-DA	11.1	8.9	48.2	12.6	6400	13	Φ16	Φ28	G1.5"	83
	XH10/403-DA	12.5	10	48.2	12.3	11100	14	Φ22	Φ35	G1.5"	104
	XH13.3/403-DA	16.6	13.3	72.2	18.4	9600	14	Φ22	Φ35	G1.5"	116
	XH13.4/404-DA	16.7	13.4	64.2	16.2	14800	15	Φ22	Φ35	G1.5"	129
	XH17.7/404-DA	22.1	17.7	96.3	24.3	12800	15	Φ22	Φ42	G1.5"	145
500 fan series	XH7/501-DA	8.7	7	27.1	7.2	6800	18	Φ16	Φ28	G1.5"	77
	XH8.5/501-DA	10.6	8.5	40.6	10.8	5800	17	Φ16	Φ28	G1.5"	84
	XH13.8/502-DA	17.3	13.8	54.2	13.8	13600	20	Φ22	Φ35	G1.5"	120
	XH16.9/502-DA	21.1	16.9	81.3	20.7	11600	19	Φ22	Φ35	G1.5"	134
	XH20.8/503-DA	26.0	20.8	81.3	20.4	20400	22	Φ22	Φ42	G2"	165
	XH25.4/503-DA	31.7	25.4	121.9	30.7	17400	21	Φ28	Φ50	G2"	187
	XH27.8/504-DA	34.7	27.8	108.3	27.0	27200	23	Φ28	Φ50	G2"	212
	XH33.8/504-DA	42.3	33.8	162.5	40.6	23200	22	Φ28	Φ50	G2"	240

※1)Tc in the table is the store temperature;△T is the heat transfer temperature difference, that is, the difference between the store temperature and the evaporation temperature.
2) The air throw is 0.5m/s of air supply distance at room temperature. 3)For the refrigeration capacity in other working conditions, refer to the correction coefficient.

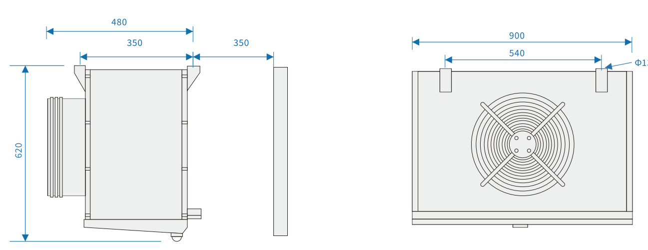
Fin pitch 9.0mm

Model		Refrigeration capacity/R404A(KW)		Area	Circuit volume	Air volume	Air throw	Connection specifications(mm)			Weight
		Tc=0°C △T=8K	Tc=-25°C △T=6K	m^2	dm^3	m^3/h	m	Liquid inlet	Suction gas line	Drainage	kg
350 fan series	XH1.1/351-JA	1.7	1.1	5.2	2.2	2150	9	Φ12	Φ22	G1"	35
	XH1.4/351-JA	2.1	1.4	7.0	2.9	1950	9	Φ12	Φ22	G1"	36
	XH2.2/352-JA	3.4	2.2	10.5	4.0	4300	11	Φ12	Φ22	G1"	55
	XH2.8/352-JA	4.2	2.8	14.0	5.3	3900	11	Φ12	Φ22	G1"	57
	XH3.3/353-JA	5.0	3.3	15.7	5.8	6450	12	Φ12	Φ22	G1"	74
	XH4.21353-JA	6.3	4.2	21.0	7.8	5850	12	Φ12	Φ22	G1"	78
	XH4.4/354-JA	6.7	4.4	21.0	7.7	8600	13	Φ12	Φ22	G1"	96
	XH5.5/354-JA	8.4	5.5	27.9	10.2	7800	13	Φ16	Φ28	G1"	100
400 fan series	XH2.1/401-JA	3.2	2.1	11.2	4.5	3800	13	Φ12	Φ22	G1"	46
	XH2.9/401-JA	4.4	2.9	16.8	6.7	3450	13	Φ12	Φ22	G1"	50
	XH4.3/402-JA	6.5	4.3	22.3	8.4	7600	14	Φ16	Φ28	G1.5"	73
	XH5.7/402-JA	8.7	5.7	33.5	12.6	6900	14	Φ16	Φ28	G1.5"	81
	XH6.4/403-JA	9.7	6.4	33.5	12.3	11400	15	Φ22	Φ35	G1.5"	101
	XH8.6/403-JA	13.1	8.6	50.3	18.4	10350	15	Φ22	Φ35	G1.5"	113
	XH8.6/404-JA	13.0	8.6	44.7	16.2	15200	16	Φ22	Φ35	G1.5"	125
	XH11.5/404-JA	17.4	11.5	67.0	24.3	13800	16	Φ22	Φ42	G1.5"	141
500 fan series	XH4.8/501-JA	7.2	4.8	18.9	7.2	7000	19	Φ16	Φ28	G1.5"	75
	XH6.1/501-JA	9.3	6.1	28.3	10.8	6200	18	Φ16	Φ28	G1.5"	82
	XH9.4/502-JA	14.3	9.4	37.7	13.8	14000	21	Φ22	Φ35	G1.5"	119
	XH12.3/502-JA	18.7	12.3	56.6	20.7	12400	20	Φ22	Φ35	G1.5"	131
	XH14.2/503-JA	21.5	14.2	56.6	20.4	21000	23	Φ22	Φ42	G2"	161
	XH18.5/503-JA	28.0	18.5	84.9	30.7	18600	22	Φ28	Φ50	G2"	181
	XH18.9/504-JA	28.7	18.9	75.4	27.0	28000	24	Φ28	Φ50	G2"	207
	XH24.6/504-JA	37.3	24.6	113.1	40.6	24800	23	Φ28	Φ50	G2"	233

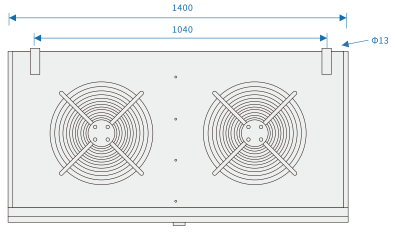
※1)Tc in the table is the store temperature;△T is the heat transfer temperature difference, that is, the difference between the store temperature and the evaporation temperature.
2) The air throw is 0.5m/s of air supply distance at room temperature. 3)For the refrigeration capacity in other working conditions, refer to the correction coefficient.

VI. Dimensions and Installation Size

XH35Series



XH351



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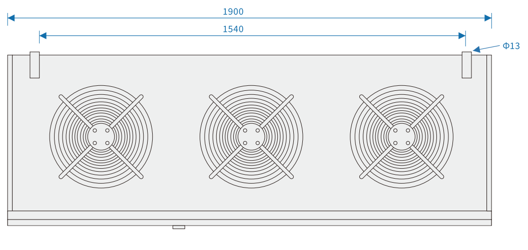

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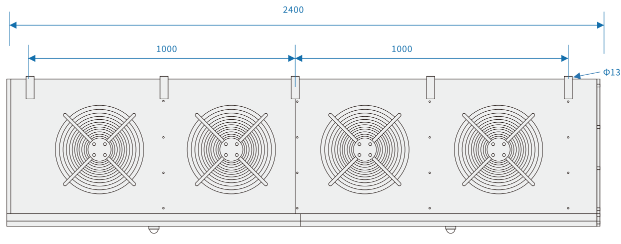
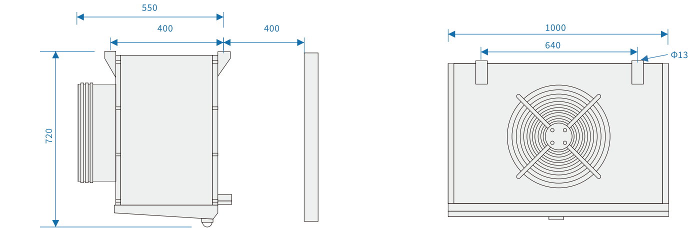


XH354

V. Electrical Parameters

Model	Motor fan				Defrosting with electric heating		
	Voltage(V)	Power(W)	Current(A)	Rotation speed (r/min)	Coil(KW)	Water tray (KW)	Total power(KW)
XH351	380-3	129	0.4	1400	2x0.5	1x0.5	1.5
XH352	380-3	258	0.8	1400	2x0.9	1x0.9	2.7
XH353	380-3	387	1.2	1400	2x1.3	1x1.3	3.9
XH354	380-3	516	1.6	1400	2x1.7	1x1.7	5.1
XH401	380-3	205	0.51	1380	3x0.6	1x0.6	2.4
XH401	380-3	205	0.51	1380	5x0.6	1x0.6	3.6
XH402	380-3	410	1.02	1380	3x1.1	1x1.1	4.4
XH402	380-3	410	1.02	1380	5x1.1	1x1.1	6.6
XH403	380-3	615	1.53	1380	3x1.6	1x1.6	6.4
XH403	380-3	615	1.53	1380	5x1.6	1x1.6	9.6
XH404	380-3	820	2.04	1380	3x2.0	1x2.0	8.0
XH404	380-3	820	2.04	1380	5x2.0	1x2.0	12.0
XH501	380-3	500	0.95	1380	3x0.8	2x0.8	4.0
XH501	380-3	500	0.95	1380	5x0.8	2x0.8	5.6
XH502	380-3	1000	1.9	1380	3x1.6	2x1.6	8.0
XH502	380-3	1000	1.9	1380	5x1.6	2x1.6	11.2
XH503	380-3	1500	2.85	1380	3x2.3	2x2.3	11.5
XH503	380-3	1500	2.85	1380	5x2.3	2x2.3	16.1
XH504	380-3	2000	3.8	1380	3x3.0	2x3.0	15.0
XH504	380-3	2000	3.8	1380	5x3.0	2x3.0	21.0

XH40series



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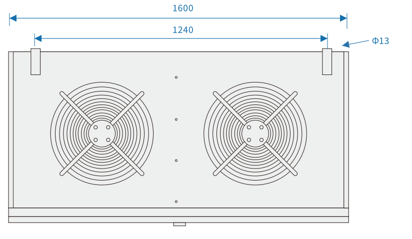

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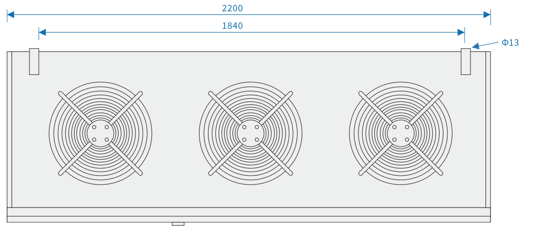
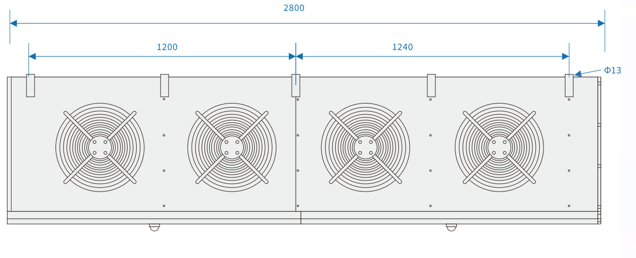


XH403



XH404

XW series water defrosting ceiling-type air cooler

Ⅰ. Product Overview

The XW series air cooler developed by our company is mainly designed with water defrosting method. Water defrosting is characterized with fast defrosting speed, excellent defrosting effect, low impact on store temperature, energy saving, etc. which is widely used in the market, XW series air coolers mainly meet the needs of fresh-keeping store at about 0 °C and cold store at low temperature of about -18 °C

This series of products has the following characteristics:

1. Enclosure: High-quality galvanized steel plate sprayed with powder coating (silver gray RAL9006), with desirable corrosion resistance, cover plates on both sides are designed with hinged structure, which is convenient to operate
2. The side sheet of the heat exchanger is made of aluminum plate, which can effectively protect the copper tube and reduce the weight;
3. Double drain trays design: The outer water tray is designed with edge structure with angle, which makes the water drain smoothly without any dead angle; the inner water tray is designed with sink structure made of aluminum plate, and the condensed water or defrost water is directly discharged into the drain and outlet of the outer water tray through the inner water tray;
4. Designed with overall stretching large arc high air tube, it has the characteristics of excellent air guiding effect;
5. The sealed water tray is adopted and the water baffle is fitted at the air inlet to prevent the splash of defrosting water;
6. There are floor supports for easy installation;
7. Coil: The aligned tube pattern 50 X 50 mm features large heat transfer area, low heat transfer temperature difference, low dry food consumption and slow frosting speed of fins;
8. Corrugated aluminum sheet made of hydrophilic aluminum foil, with the sheet spacing of 4.5mm, 6.0mm and 9.0mm to meet the requirements of different temperatures and humidity;
9. Fan: High-power external rotor fan, operating temperature: -30 °C~ 60 °C: fan specifications: ф500 and ф630, product series of different specifications, giving users more choices;
10. The lP65 waterproof function box are used in motor wiring, with better waterproofing, which can lead to high reliability;
11. The outlet of the air cooler is equipped with a needle valve, which is convenient for users to test the pressure;
12. It is subjected to strict pressure test at the pressure of 23 bar;
13. The expansion valves, heating band of fan tube and other parts can be preinstalled according to customer's needs;
14. It is compatible with R404A, R507A, R448A, R449A, R134A, R22 and other refrigerants.

Ⅳ.Performance Datasheet

Fin pitch 4.5mm

型号		Refrigeration capacity/R404A(KW)		Area	Circuit volume	Air volume	Air throw	Fan		Refrigerant (mm)		Water connection (mm)		Defrosting water	weight
		Tc=0°C △T=8K	Tc=-5°C △T=7K	m^2	dm^3	m^3/h	m	Power (W)	Current (A)	Inlet	Outlet	Inflow	Drainage	m^3/h	kg
500 fan series	XH9.8/501-LA	9.8	13.5	55.1	9.0	6800	17	500	0.95	16	22	1.5"	2"	2.1	101
	XH11.4/501-LA	11.4	15.7	68.9	11.2	6350	16	500	0.95	16	28	1.5"	2"	2.6	107
	XH12.9/501-LA	12.9	17.8	82.7	13.5	5500	16	500	0.95	16	28	1.5"	2"	3.1	11a
	XH19.6/502-LA	19.6	27.0	110.3	17.1	13600	19	1000	1.9	22	35	1.5"	2"	4.2	159
	XH22.9/502-LA	22.9	31.6	137.8	21.3	12700	18	1000	1.9	22	35	1.5"	2"	5.2	170
	XH25.7/502-LA	25.7	35.5	165.3	25.6	11000	18	1000	1.9	22	42	1.5"	2"	6.2	181
	XH29.3/503-LA	29.3	40.4	165.3	25.2	20400	21	1500	2.85	22	42	1.5"	2"	6.2	219
	XH34.4/503-LA	34.4	47.5	206.6	31.5	19050	20	1500	2.85	22	42	1.5"	2"	7.8	237
	XH38.5/503-LA	38.5	53.1	248.0	37.8	16500	20	1500	2.85	22	42	1.5”	2"	9.4	253
	XH39.2/504-LA	39.2	54.1	220.4	33.3	27200	22	2000	3.8	22	42	2x1.5"	3"	8.3	276
	XH43.3/504-LA	43.3	59.8	259.8	39.2	25400	21	2000	3.8	22	42	2x1.5"	3"	9.8	298
	XH51.4/504-LA	51.4	70.9	330.7	49.9	22000	21	2000	3.8	28	50	2x1.5"	3"	12.5	319
	XH49/505-LA	49.0	67.6	275.6	41.4	34000	23	2500	4.75	28	50	2x1.5"	3"	10.4	330
	XH54.1/505-LA	54.1	74.7	324.8	48.7	31750	22	2500	4.75	28	50	2x1.5"	3"	12.3	357
	XH64.3/505-LA	64.3	88.7	413.4	62.0	27500	22	2500	4.75	28	50	2x1.5”	3"	15.6	384
600 fan series	XH15.8/631-LA	15.8	21.8	94.5	15.0	10000	27	800	1.6	16	28	1.5"	2"	3.6	143
	XH18.3/631-LA	18.3	25.3	118.1	18.8	9600	26	800	1.6	16	28	1.5"	2"	4.5	152
	XH20.4/631-LA	20.4	28.2	141.8	22.5	9100	26	800	1.6	22	35	1.5"	2"	5.4	161
	XH31.5/632-LA	31.5	43.5	189.0	28.9	20000	30	1600	3.2	22	42	1.5"	2"	7.1	240
	XH36.7/632-LA	36.7	50.6	236.2	36.1	19200	29	1600	3.2	22	42	1.5”	2"	8.9	258
	XH40.9/632-LA	40.9	56.4	283.4	43.3	18200	29	1600	3.2	22	42	1.5"	2"	10.7	276
	XH47.2/633-LA	47.2	65.1	283.4	42.8	30000	33	2400	4.8	22	42	1.5"	2"	10.7	327
	XH55.1/633-LA	55.1	76.0	354.3	53.4	28800	32	2400	4.8	28	50	1.5"	2"	13.4	354
	XH61.4/633-LA	61.4	84.7	425.2	64.1	27300	32	2400	4.8	28	50	1.5”	2"	16.0	381
	XH63/634-LA	63.0	86.9	377.9	56.6	40000	35	3200	6.4	28	50	2x1.5"	3"	14.3	422
	XH73.5/634-LA	73.5	101.4	472.4	70.8	38400	34	3200	6.4	28	50	2x1.5"	3"	17.8	458
	XH81.9/634-LA	81.9	113.0	566.9	84.9	36400	34	3200	6.4	35	50	2x1.5"	3"	21.4	494

※1)Tc in the table is the store temperature; △T is the heat transfer temperature difference, that is, the difference between the store temperature and the evaporation temperature. 2)The air throw is 0.5m/s of air supply distance at room temperature. 3)The calculation basis of the amount of defrosting water is that the thickness of the frost layer is 1mm, the temperature is 0°C, the inlet water temperature is 15°C, the outlet water temperature is 5°C, and the defrosting time is 5 minutes.

Ⅱ. Model Description

XW 2.7 / 35 1 - L A

- A: Voltage，A: 3P/380V/50HZ,B: 1P/220V/50HZ
- L: Pitch code,L: 4.5mm，D: 6.0mm，J: 9.0mm
- 1: Quantity of fans
- 35: Fan diameter (cm)
- 2.7: Nominal Heat Transfer Rate
- XW: Product series code

Ⅲ.Standard and Optional Components

Component		Configuration	Component		Configuration
Enclosure	Powder coated aluminum plate	×	Aluminum foil	Normal aluminium foil	○
	Powder coated steel plate	○		Hydrophilic aluminum foil (blue foil)	●
	Powder coated galvanized sheet	●	Defrost	Defrosting with water	●
	Stainless steel plate*	○		Electric heating	○
Motor	Weiguang external rotor motor	●	Expansion valve		○
	EBM external rotor motor*	○	Drain heater		○
	Air tube fan	○	Fan tube heater		○

Fin pitch 6.0mm

型号		Refrigeration capacity/R404A(KW)		Area	Circuit volume	Air volume	Air throw	Fan		Refrigerant (mm)		Water connection (mm)		Defrosting water	weight
		Tc=0°C △T=8K	Tc=-18°C △T=7K	m^2	dm^3	m^3/h	m	Power (W)	Current (A)	Inlet	Outlet	Inflow	Drainage	m^3/h	kg
500 fan series	XH6.6/501-DA	8.3	6.6	41.5	9.0	7000	18	500	0.95	16	22	1.5"	2"	1.5	98
	XH7.8/501-DA	9.8	7.8	51.9	11.2	6500	17	500	0.95	16	28	1.5"	2"	1.9	103
	XH9/501-DA	11.2	9	62.3	13.5	6100	17	500	0.95	16	28	1.5"	2"	2.3	109
	XH13.3/502-DA	16.6	13.3	83.1	17.1	14000	20	1000	1.9	22	35	1.5"	2"	3.1	152
	XH15.8/502-DA	19.7	15.8	103.8	21.3	13000	19	1000	1.9	22	35	1.5"	2"	3.8	162
	XH17.9/502-DA	224.0	17.9	124.6	25.6	12200	19	1000	1.9	22	42	1.5"	2"	4.6	171
	XH19.9/503-DA	24.9	19.9	124.6	25.2	21000	22	1500	2.85	22	42	1.5"	2"	4.6	209
	XH23.6/503-DA	29.5	23.6	155.7	31.5	19500	21	1500	2.85	22	42	1.5"	2"	5.8	223
	XH26.9/503-DA	33.6	26.9	186.9	37.8	18300	21	1500	2.85	22	42	1.5”	2"	6.9	238
	XH26.6/504-DA	33.2	26.6	166.1	33.3	28000	23	2000	3.8	22	42	2x1.5"	3"	6.1	262
	XH29.8/504-DA	37.2	29.8	195.8	39.2	26000	22	2000	3.8	22	42	2x1.5"	3"	7.2	281
	XH35.8/504-DA	44.8	35.8	249.2	49.9	24400	22	2000	3.8	28	50	2x1.5"	3"	10.3	299
	XH33.2/505-DA	41.5	33.2	207.6	41.4	35000	24	2500	4.75	28	50	2x1.5"	3"	7.7	313
	XH37.2/505-DA	46.5	37.2	244.7	48.7	32500	23	2500	4.75	28	50	2x1.5"	3"	9.1	335
	XH44.9/505-DA	56.1	44.9	311.5	62.0	30500	23	2500	4.75	28	50	2x1.5”	3"	11.5	358
600 fan series	XH10.8/631-DA	13.5	10.8	71.2	15.0	10300	28	800	1.6	16	28	1.5"	2"	2.6	137
	XH12.8/631-DA	16.0	12.8	89.0	18.8	9800	27	800	1.6	16	28	1.5"	2"	3.3	145
	XH14.5/631-DA	18.2	14.5	106.8	22.5	9100	27	800	1.6	22	35	1.5"	2"	4.0	152
	XH21.7/632-DA	27.1	21.7	142.4	28.9	20600	31	1600	3.2	22	42	1.5"	2"	5.3	228
	XH25.6/632-DA	32.0	25.6	178.0	36.1	19600	30	1600	3.2	22	42	1.5”	2"	6.6	243
	XH29/632-DA	36.3	29	213.6	43.3	18200	30	1600	3.2	22	42	1.5"	2"	7.9	258
	XH32.4/633-DA	40.5	32.4	213.6	42.8	30900	34	2400	4.8	22	42	1.5"	2"	7.9	310
	XH38.5/633-DA	48.1	38.5	267.0	53.4	29400	33	2400	4.8	28	50	1.5"	2"	9.9	332
	XH43.6/633-DA	54.5	43.6	320.4	64.1	27300	33	2400	4.8	28	50	1.5”	2"	11.9	355
	XH43.3/634-DA	54.1	43.3	284.8	56.6	41200	36	3200	6.4	28	50	2x1.5"	3"	10.5	399
	XH51.3/634-DA	64.1	51.3	356.0	70.8	39200	35	3200	6.4	28	50	2x1.5"	3"	13.2	429
	XH58.1/634-DA	72.6	58.1	427.2	84.9	36400	35	3200	6.4	35	50	2x1.5"	3"	15.8	459

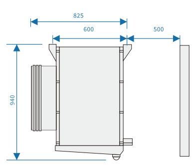
XW series water defrosting ceiling-type air cooler

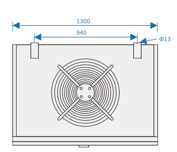
Fin pitch 9.0mm

型号		Refrigeration capacity/R404A(KW)		Area	Circuit volume	Air volume	Air throw	Fan		Refrigerant (mm)		Water connection (mm)		Defrosting water	weight
		Tc=0°C △T=8K	Tc=-25°C △T=6K	m^2	dm^3	m^3/h	m	Power (W)	Current (A)	Inlet	Outlet	Inflow	Drainage	m^3/h	kg
500 fan series	XH5.7/501-JA	7.1	5.7	28.4	9.0	7380	19	500	0.95	16	22	1.5"	2"	1.1	97
	XH6.8/501-JA	8.5	6.8	35.5	11.2	6800	18	500	0.95	16	28	1.5"	2"	1.3	102
	XH7.8/501-JA	9.8	7.8	42.6	13.5	6350	18	500	0.95	16	28	1.5"	2"	1.6	107
	XH11.3/502-JA	14.2	11.3	56.9	17.1	14760	21	1000	1.9	22	35	1.5"	2"	2.1	151
	XH13.6/502-JA	17.0	13.6	71.1	21.3	13600	20	1000	1.9	22	35	1.5"	2"	2.6	160
	XH15.7/502-JA	19.6	15.7	85.3	25.6	12700	20	1000	1.9	22	42	1.5"	2"	3.2	168
	XH17/503-JA	21.3	17	85.3	25.2	22140	23	1500	2.85	22	42	1.5"	2"	3.2	206
	XH20.5/503-JA	25.6	20.5	106.6	31.5	20400	22	1500	2.85	22	42	1.5"	2"	4.0	219
	XH23.5/503-JA	29.4	23.5	127.9	37.8	19050	22	1500	2.85	22	42	1.5”	2"	4.8	234
	XH22.7/504-JA	28.4	22.7	113.7	33.3	29520	24	2000	3.8	22	42	2x1.5"	3"	4.2	259
	XH25.7/504-JA	32.2	25.7	134.0	39.2	27200	23	2000	3.8	22	42	2x1.5"	3"	5.0	276
	XH31.3/504-JA	39.2	31.3	170.6	49.9	25400	23	2000	3.8	28	50	2x1.5"	3"	6.3	294
	XH28.4/505-JA	35.5	28.4	142.1	41.4	36900	25	2500	4.75	28	50	2x1.5"	3"	5.3	309
	XH32.1/505-JA	40.2	32.1	167.5	48.7	34000	24	2500	4.75	28	50	2x1.5"	3"	6.2	331
	XH39.2/505-JA	49.0	39.2	213.2	62.0	31750	24	2500	4.75	28	50	2x1.5”	3"	7.9	352
600 fan series	XH9/631-JA	11.2	9	48.7	15.0	10600	29	800	1.6	16	28	1.5"	2"	1.8	136
	XH10.5/631-JA	13.1	10.5	60.9	18.8	10000	28	800	1.6	16	28	1.5"	2"	2.3	143
	XH11.7/631-JA	14.6	11.7	73.1	22.5	9600	28	800	1.6	22	35	1.5"	2"	2.7	150
	XH17.9/632-JA	22.4	17.9	97.5	28.9	21200	32	1600	3.2	22	42	1.5"	2"	3.6	226
	XH21/632-JA	26.2	21	121.8	36.1	20000	31	1600	3.2	22	42	1.5”	2"	4.5	240
	XH23.3/632-JA	29.2	23.3	146.2	43.3	19200	31	1600	3.2	22	42	1.5"	2"	5.4	254
	XH26.9/633-JA	33.6	26.9	146.2	42.8	31800	35	2400	4.8	22	42	1.5"	2"	5.4	306
	XH31.4/633-JA	39.3	31.4	182.7	53.4	30000	34	2400	4.8	28	50	1.5"	2"	6.8	327
	XH35/633-JA	43.8	35	219.3	64.1	28800	34	2400	4.8	28	50	1.5”	2"	8.1	349
	XH35.8/634-JA	44.8	35.8	194.9	56.6	42400	37	3200	6.4	28	50	2x1.5"	3"	7.2	394
	XH41.8/634-JA	52.3	41.8	243.6	70.8	40000	36	3200	6.4	28	50	2x1.5"	3"	9.0	422
	XH46.8/634-JA	58.5	46.8	292.4	84.9	38400	36	3200	6.4	35	50	2x1.5"	3"	10.8	451

V. Dimensions and Installation Size

XW 50series





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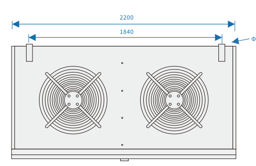

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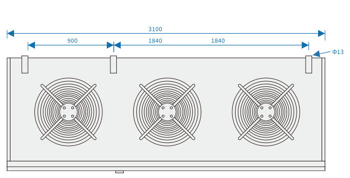

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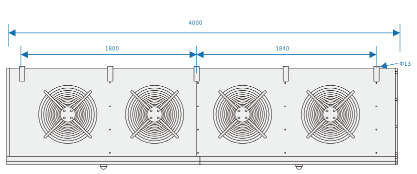

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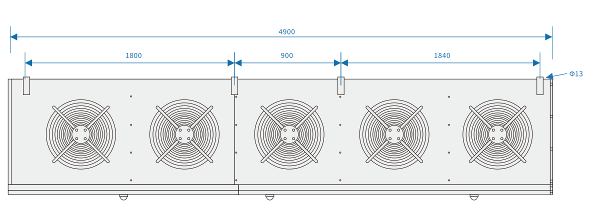

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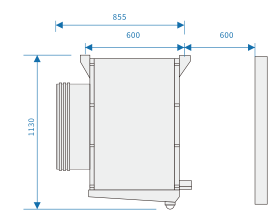
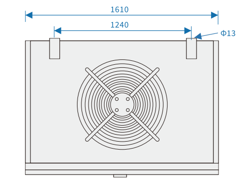
XW 63series





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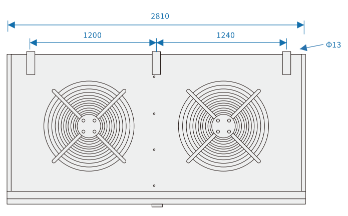

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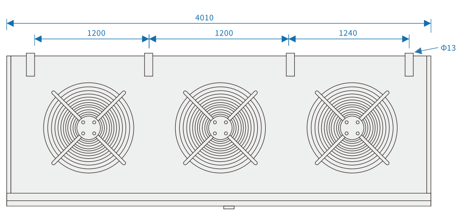

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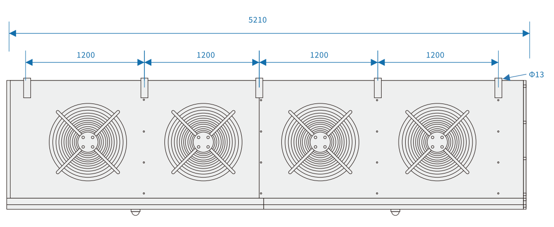

XW634

Selection Guide of Condensing Unit

The selection of the condensing unit shall be based on the comprehensive consideration of the required refrigeration load, use temperature, operating evaporation temperature, ambient temperature, refrigerant, power supply form and other factors.

(1) About the refrigeration load: the refrigeration load applied in the cold storage shall include the heat transfer of the enclosure structure of the storage, the heat of goods, the heat of the operating motor in the storage, the heat of air exchange, the heat of operation, etc., and shall be calculated in detail in combination with the specific application properties of the cold storage;

(2) About the use temperature: for the application of cold storage, the use temperature of cold storage should be reasonably determined, which can be determined by referring to the following table

Cold Storage Use	Recommended Temperature	Cold Storage Use	Recommended Temperature	Cold Storage Use	Recommended Temperature
Banana Storage	11~16°C	Red Wine, Chocolate Storage	7~18°C	Frozen Meat, Poultry, Frozen Dumplings, Popsicle, etc	-18°C
Cucumber, Tomato, Bean, Persimmon Pepper, Pineapple, Orange, etc	7~13°C	Storage of Eggs, Milk, Tea, etc	2~5°C	Frozen Shrimp, Fish, Ice Cream, etc	-2~-23°C
Potatoes, Taro, Onion, Orange, Lychee, etc	2~4°C	Ice Fresh Fish, Cold Fresh Meat, Cooked Food, etc	-1~2°C	Quick Frozen Processing	-2~-35°C
Cabbage, Garlic, Carrot, Lettuce, Apple, Pear, etc	0~2°C	Ice Storage	-5~-10°C	Tuna Frozen Products Storage	-55~-60°C

(3)About the operating evaporation temperature: the evaporation temperature directly affects the refrigeration capacity and energy efficiency of the unit. The evaporation temperature shall be reasonably determined in combination with the actual use temperature, which is generally 5-10°C lower than the storage temperature. It can be determined by referring to the following table:

Cold Room Temp.	10°C	0°C	-18°C	-25°C	-35°C	-55°C
Recommended Evap Temp.	0°C	-8°C	-25°C	-31°C	-41°C	-60°C

Select the appropriate unit according to the determined evaporation temperature, which can be selected according to the following table:

Cold Room Temp.	7-20°C	5~-5°C	-15~-25°C	-28°C and below
Unit Selection	High Temp.unit (H)	Medium Temp.unit (M)	Low Temp.unit (L)	Quick Freezing Unit (J)

(4) About the ambient temperature: the ambient temperature of the unit using area shall be determined according to the average temperature of the summer air conditioning festival in the area(check the relevant meteorological data) , rather than the maximum limit temperature. Generally, it can be selected according to the ambient temperature of 32°C. The standard design ambient temperature of air-cooled unit is 32°C. When it is used in the high ambient temperature area above 38°C, The configuration of condenser shall be adjusted, and special attention shall be paid to the selection.

(5) About refrigerants: commonly used refrigerants include R22, R404A, R507A, R448A, R449A, etc.

R22: Because of its ozone depletion potential index ODP = 0.055, it has a destructive effect on the ozone layer in the atmosphere. It has been eliminated or restricted in some countries and regions, and belongs to the phase out refrigerant. when R22 is used for low evaporation temperature (below-25°C), because the exhaust temperature of compressor is high, necessary auxiliary cooling devices (such as DTC valve, cylinder head fan, etc.) must be added, so R22 should not be used for low temperature unit as much as possible.

R404A, R507A: Due to its higher global warming potential (GWP), it has been restricted in some countries and regions and belongs to the phase out refrigerant.R404A and R507A can be used at high, medium and low temperature.

R448A, R449A: Its ODP=0 and GWP is lower, so it is a kind of widely used refrigerant, which can meet the needs of high, medium and low temperature.

When selecting the unit, the policies and regulations of the country or region used for the refrigerant shall be fully considered.

(6) About the power supply: the standard power supply of the unit is 380V/3P/50Hz. For other forms of power supply, special instructions must be given, and special attention shall be paid to the selection.

Selection Guide for Unit Coolers

The selection of unit cooler should be based on the required refrigeration capacity, storage temperature, heat transter temperature difference, refrigerant and the occasion used.
Examples of selection are as follows:
Example: The refrigeration capacity of a cold storage is 10kw, the storage temperature is 2°C, and the refrigerant is R404A. It is used for fresh-keeping of fruits and vegetables, and epoxy coated aluminum fins is required.
The selection steps are as follows:
(1). According to the evaporation temperature of refrigeration system design, Determine the heat transfer temperature difference(△T) ;△T=Tc-Te (Tc: storage temperature, Te: evaporation temperature)
For example, the designed evaporation temperature is -8°C, if the temperature of the storage is required to be 2°C, then △T=2-(-8)=10K.
(2). Determine the nominal refrigeration capacity required Q0:
Q0 =Q/(K1×K2×K3)
Formula: Q- The actual cooling capacity of the required air cooler(KW);
K1-Nominal refrigeration capacity correction coefficient. See table below;
K2- Refrigerant correction factor. See table below;
K3- Correction Coefficient of Fin Material. See table below;
So the nominal refrigeration capacity required is: Q0 = 10/(1.34×1.0×0.97)=7.7KW
K1: Refrigeration correction coefficient table (nominal refrigeration capacity based on evaporation temp. -8°C, storage temp. 0°C, heat transfer temp. difference 8K)

K1: Refrigeration correction coefficient table (nominal refrigeration capacity based on evaporation temp.-8°C, storage temp. 0°C, heat transfer temp. difference 8K)

△T (K)	Cold room temp.(°C)															
	-35	-30	-25	-20	-15	-10	-5	0	1	2	3	4	5	6	8	10
4	0.44	0.44	0.44	0.45	0.46	0.48	0.49	0.5	0.52	0.54	0.55	0.57	0.59	0.59	0.59	0.59
5	0.54	0.54	0.55	0.57	0.58	0.60	0.61	0.63	0.65	0.67	0.69	0.71	0.73	0.73	0.73	0.73
6	0.65	0.65	0.66	0.68	0.70	0.71	0.73	0.75	0.78	0.80	0.83	0.85	0.88	0.88	0.88	0.88
7	0.76	0.76	0.77	0.79	0.81	0.83	0.85	0.87	0.90	0.94	0.97	1.0	1.03	1.03	1.03	1.03
8	0.87	0.87	0.88	0.90	0.93	0.95	0.98	1.00	1.04	1.07	1.10	1.14	1.17	1.17	1.17	1.17
9	0.98	0.98	0.99	1.02	1.04	1.07	1.10	1.13	1.16	1.20	1.24	1.28	1.32	1.32	1.32	1.32
10	1.09	1.09	1.10	1.13	1.16	1.19	1.22	1.25	1.29	1.34	1.38	1.42	1.47	1.47	1.47	1.47

K2: Refrigerant correction factor table

Refrigent	Cold room temp.(°C)															
	-35	-30	-25	-20	-15	-10	-5	0	1	2	3	4	5	6	8	10
R404A	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
R507A	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
R134A	-	-	-	-	0.86	0.88	0.89	0.91	0.91	0.91	0.92	0.92	0.92	0.92	0.92	0.93
R22	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95

K3: Correction Coefficient of fin material table

Fin Material	Cold room temp.(°C)
Aluminum	1.0
Epoxy coated Aluminum	0.97

(3). Selection of type and fins spacing of air cooler
According to the storage temperature of 2°C, 4.2mm fins space can be selected(generally, 4.2mm space is selected for storage temp. above -2°C , 6.4mm fins space is selected for storage temp. of -15~- 20°C, and 9.0mm space is selected for storage temp. below - 25°C).

NOTE

1. If you encounter any technical issues or uncertainties, please reach out to our technical department for assistance.
2. The configuration of the condensing unit can be adjusted based on actual requirements, as stated in the manual.
3. Our company specializes in designing and manufacturing custom refrigeration units to meet specific customer requirements. Please contact our technical or sales department for detailed inquiries.
4. Please note that we reserve the right to modify technical parameters without prior notice or liability.