

XCOOL

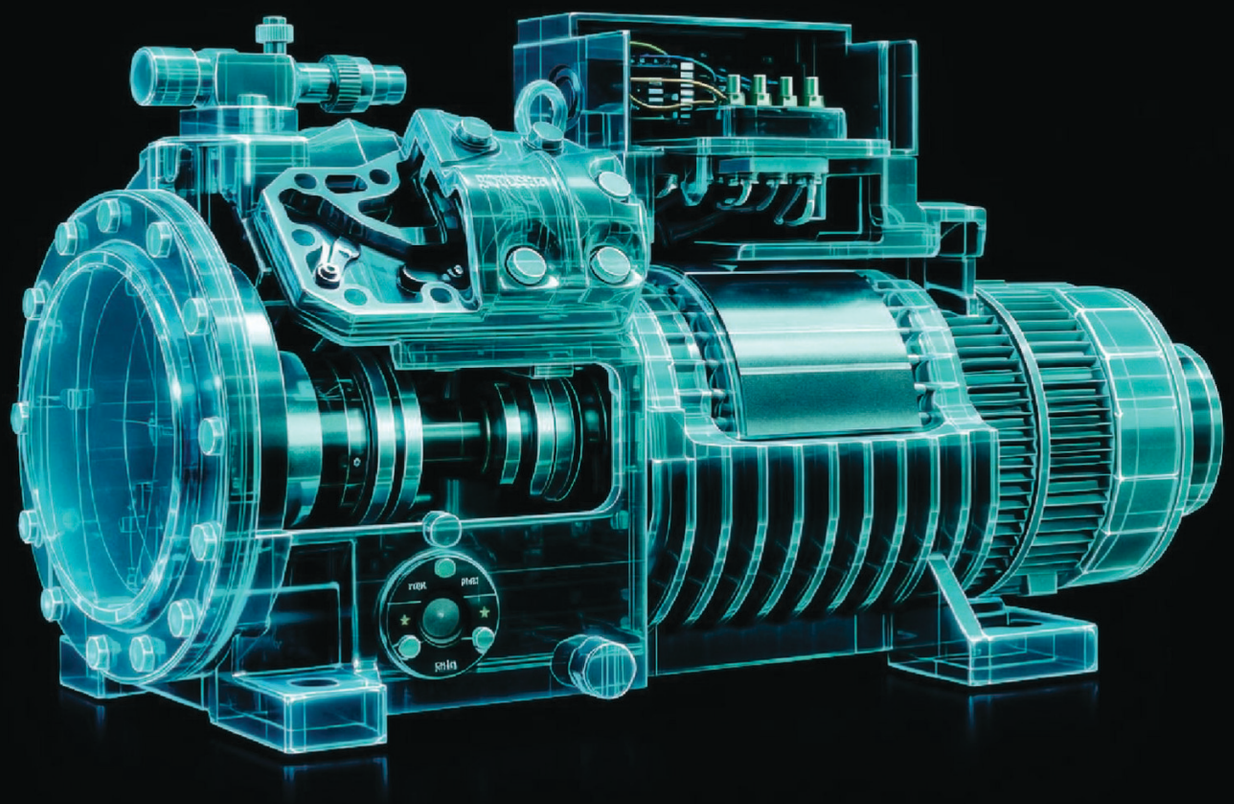
Condensing Unit
Technical Catalog



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Semi-Hermetic Compressor



Product Introduction

The compressor drives the refrigeration cycle by compressing low-pressure refrigerant vapor into a high-pressure gas, enabling effective heat rejection.

Number Indicates

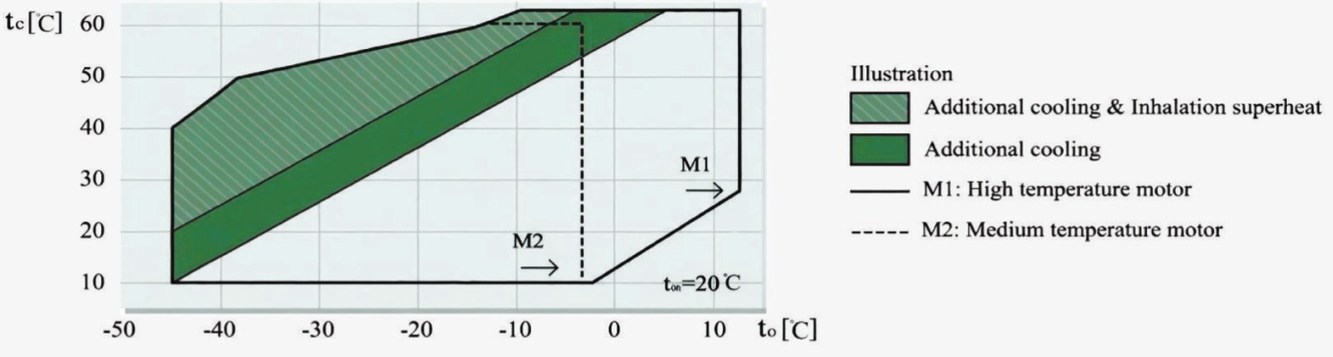
Number Indicates	BRC5G4T-18.4EB
BR BF	Semi-Hermetically refrige ration Compressor
C	C-for Ship, EX-Explosion-Proof, Other Letters-Special Types (Standby), Ordinary Type isn't Denoted.
5	Nominal Power of the motor (HP)
G	G-High-Tempreture Machine Z-Medium-Tempreture Machine DS-Low-Tempreture Double-Stage Machine
4	Cylinder Number
T	T-Butt Joint Machine; Single Machine isn't Denoted.
18.4	Theoritical Displacement (m^3/h)
E	Refrigeration Oil Type: E-ester Oil (R404A, R134a, R407C New Working Mediums); Mineral Oil isn't Denoted (R22, R502)
B	Remodeling Code

Technical Parameters

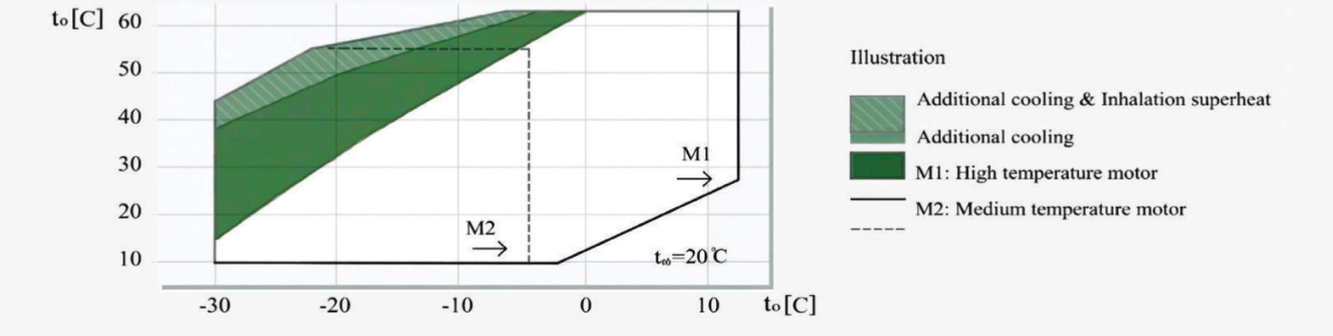
Item \ Refrigerant	R22	R134a	R404A	R407A	R407B	R407C
Evaporating Tempreture	-40~+12.5°C	-20~+12.5°C	-40~+10°C	-40~-10°C	-40~-10°C	-30~+10°C
Condensing Tempreture	30~45°C (Water Cooled); 30~50°C (Air Cooled)					
Max.Pressure Difference	1.83MPa					
Max.Compression Ratio	18					
Max.Discharge Tempreture	135°C (Discharge Pipe Surface)					
Suction Superheat	Min: 10°C, Max: When Ensure the Discharge Temp.Less Than 135°C that the Superheat Max.					
Max.Oil Tempreture	80°C					
Power Supply	3Ph 380/440V 50/60Hz					
Motor Tempreture	Below 105°C					
Refrigeration Oil	SUNISO 3GS	SUNISO SL32S				
Max.Ambient Tempreture	43°C					

* The range of evaporation temperature please see the table of refrigerating capacity.

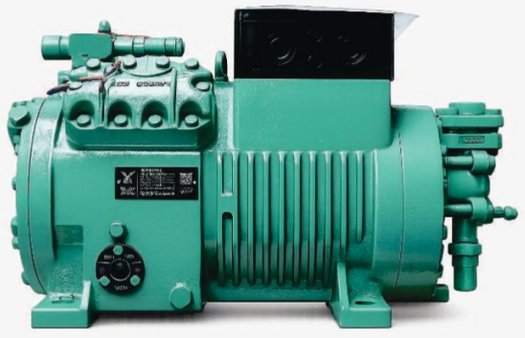
© The applicable model : BR3Z4-18.1-BR9G4-32.5



© The applicable model : BR6Z4-34.7-BR50G6-151.6

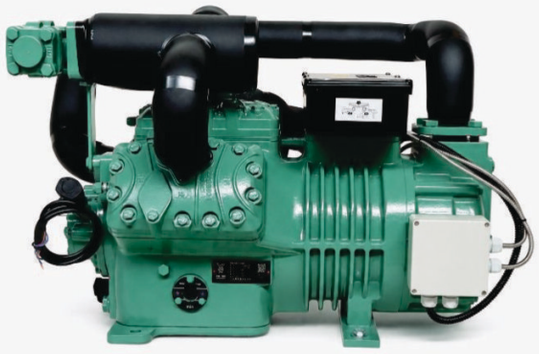


Technical parameter of ZSJ Semi-hermetic Reciprocating Compressors



Compressor Model	Nominal Motor Power HP/kW	Displacement (50Hz) m^3/h	Number of Cylinder × Diameter × Stroke mm	Oil Injection Vlolume L	Power Supply V/ϕ/Hz	Electrical Parameter		Crankcase Heater (220V) W	Oil Supply Method	Wait (Including Freezing Oil) Kg
						Max Operating Current A	Starting Current/Rotor Locked Current A			
BF5G2-18.4	5/3.7	18.4	2×ϕ54×46	1.85		8.5	26/45	60		101
BF8G2-26.8	8/5.5	26.8	2×ϕ64×48	3.5		13	41/74	120		140
BF8K2-36.0	8/5.5	36	2×ϕ64×64	3.5	380~420/3/50	11.4	41/74	120	Splash	141
BF10G3-36.0	10/7.5	36	2×ϕ64×64	3.5	440~480/3/60	18.6	52/82	120	lubrication	145
BF12Z3-54.0	12/8.8	54	3×ϕ64×64	4.8		23.6	56/89	180		184
BF15G3-54.0	15/10.5	54	3×ϕ64×64	4.8		28	72/102	180		192
BR3Z4-18.1	3/2.2	18.05	4×ϕ41×39.3	2.0		9.2	44.2	120		82
BR5G4-18.1	5/3.7	18.05	4×ϕ41×39.3	2.0		10.8	62.2	120		86
BR4Z4-22.7	4/3.0	22.72	4×ϕ46×39.3	2.0	380~420YY/3/5	10.7	53.5	120		84
BR6G4-22.7	6/4.4	22.72	4×ϕ46×39.3	2.0	0	13.2	62.2	120	Centrifugal	86
BR5Z4-26.8	5/3.7	26.84	4×ϕ50×39.3	2.0	440~480YY/3/6	13.5	62.2	120	lubrication	85.5
BR7G4-26.8	7/5.1	26.84	4×ϕ50×39.3	2.0	0	15.9	82.4	120		88.5
BR6Z4-32.5	6/4.4	32.48	4×ϕ55×39.3	2.0		15.9	82.4	120		90.5
BR9G4-32.5	9/6.6	32.48	4×ϕ55×39.3	2.0		20	82.4	120		90.5
BR6Z4-34.7	6/4.4	34.73	4×ϕ55×42	2.6		14	39/68	140		129
BR10G4-34.7	10/7.5	34.73	4×ϕ55×42	2.6		21	59/99	140		139
BR8Z4-41.3	8/5.5	41.33	4×ϕ60×42	2.6	380~420YY/3/5	17	49/81	140		134
BR12G4-41.3	12/8.8	41.33	4×ϕ60×42	2.6	0	24	69/113	140	Centrifugal	141
BR10Z4-48.5	10/7.5	48.5	4×ϕ65×42	2.6	440~480YY/3/6	21	59/99	140	lubrication	139
BR15G4-48.5	15/10.5	48.5	4×ϕ65×42	2.6	0	31	81/132	140		142
BR12Z4-56.3	12/8.8	56.25	4×ϕ70×42	2.6		24	69/113	140		141
BR20G4-56.3	20/15	56.25	4×ϕ70×42	2.6		37	97/158	140		150
BR13Z4-63.5	13/9.6	63.5	4×ϕ65×55	4.5		27	81/132	140		193
BR20G4-63.5	20/15	63.5	4×ϕ70×47.5	4.5		37	97/158	140		202
BR15Z4-73.6	15/10.5	73.6	4×ϕ70×55	4.5	380~420YY/3/5	31	81/132	140		197
BR25G4-73.6	25/18.5	73.6	4×ϕ70×55	4.5	0	45	116/193	140	Forced-	205
BR20Z4-84.5	20/15	84.5	4×ϕ75×55	4.5	440~480YY/3/6	37	97/158	140	lubrication	200
BR30G4-84.5	30/22	84.5	4×ϕ75×55	4.5	0	53	135/220	140		209
BR25Z4-101.1	25/18.5	101.1	4×ϕ82×55	4.5		45	116/193	140		202
BR35G4-101.1	35/25.5	101.1	4×ϕ82×55	4.5		61	147/262	140		211
BR22Z6-95.3	22/16.2	95.3	6×ϕ65×55	4.25			116/193	140		226
BR33G6-95.3	33/24.3	95.3	6×ϕ65×55	4.25			147/262	140		244
BR25Z6-110.5	25/18.5	110.5	6×ϕ70×55	4.25	380~420YY/3/5		116/193	140		237
BR35G6-110.5	35/25.5	110.5	6×ϕ70×55	4.25	0		147/262	140	Forced-	248
BR30Z6-126.8	30/22	126.8	6×ϕ75×55	4.75	440~480YY/3/6	53	135/220	140	lubrication	241
BR40G6-126.8	40/30	126.8	6×ϕ75×55	4.75	0	78	180/323	140		247
BR40Z6-151.6	40/30	151.6	6×ϕ82×55	4.75		78	180/323	140		243
BR50G6-151.6	50/37	151.6	6×ϕ82×55	4.75		92	226/404	140		248
BR60G4T-169	2×30/2×22	2×84.5	4+4×ϕ75×55	2×4.5		2×53	2×135/2×220	2×140		458
BR50Z4T-202.2	2×25/2×18.5	2×101.1	4+4×ϕ82×55	2×4.5		2×45	2×116/2×193	2×140		445
BR70G4T-202.2	2×35/2×25.5	2×101.1	4+6×ϕ82×55	2×4.5	380~420YY/3/5	2×61	2×147/2×262	2×140		462
BR50Z6T-221	2×25/2×18.5	2×110.5	6+6×ϕ70×55	2×4.75	0	2×45	2×116/2×193	2×140	Forced-	514
BR70G6T-221	2×35/2×25.5	2×110.5	6+6×ϕ75×55	2×4.75	440~480YY/3/6	2×61	2×147/2×262	2×140	lubrication	524
BR60Z6T-253.2	2×30/2×22	2×126.8	6+6×ϕ75×55	2×4.75	0	2×53	2×135/2×220	2×140		522
BR80G6T-253.6	2×40/2×30	2×126.8	6+6×ϕ75×55	2×4.75		2×78	2×180/2×323	2×140		534
BR80Z6T-303.2	2×40/2×30	2×151.6	6+6×ϕ82×55	2×4.75		2×78	2×180/2×323	2×140		526
BR100G6T-303.2	2×50/2×37	2×151.6	6+6×ϕ82×55	2×4.75		2×92	2×226/2×404	2×140		536

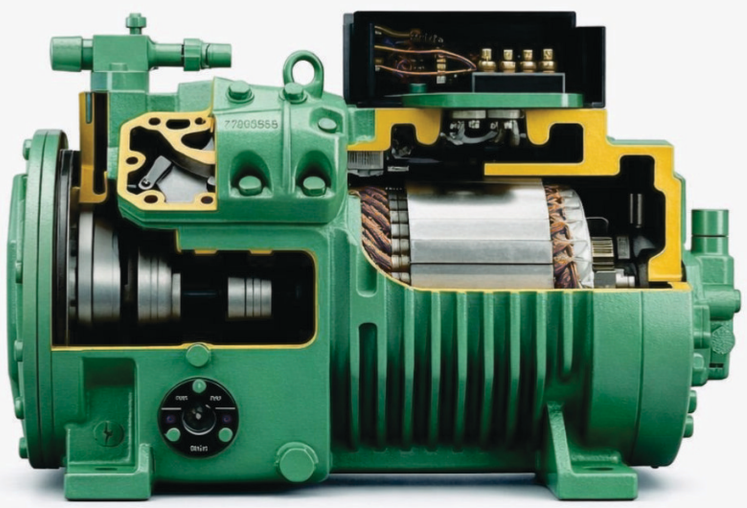
Technical parameter of ZSJ Double Stage Semi-hermetic Reciprocating Compressors



Compressor Model	Nominal Motor Power HP/kW	Displacement (50Hz) m³/h		Number of Cylinder × Diameter × Stroke mm	Oil Injection Volume L	Power Supply V/ϕ/Hz	Electrical Parameter		Crankcase Heater (220V) W	Oil Supply Method	Weight (Including Freezing Oil) Kg
		Low Pressure	High Pressure				Max Operating Current A	Starting Current/Rotor Locked Current A			
BR5DS4-10.3	5/3.7	16.24	10.3	4 × ϕ55/ 46.3× 39.3	2.0		14	39/68	120	Centrifugal lubrication	87
BR8DS4-17.9	8/5.5	28.12	17.9	4 × ϕ70 / 55 × 42	2.6		17	49/81	140		135
BR12DS4-27.0	12/8.8	42.3	27	4 × ϕ75 / 60 × 55	4.5		24	69/113	140		180
BR16DS6-31.8	16/11.7	63.5	31.8	6 × ϕ65 / 65 × 55	4.75	380~420YY/3/50 440~480YY/3/60	31	81/132	140		220
BR20DS6-36.8	20/15	73.6	36.8	6 × ϕ70 / 70 × 55	4.75		37	97/158	140	Forced-lubrication	235
BR25DS6-42.3	25/18.5	84.5	42.3	6 × ϕ75 / 75 × 55	4.75		45	116/193	140		248
BR30DS6-50.5	30/22	101.1	50.5	6 × ϕ82 / 82 × 55	4.75		53	135/220	140		249
BR40DS6T-73.6	2×20/2×15	2×73.6	2×36.8	6+6 × ϕ70 × 55	2×4.75		2×37	2×97/2×158	2×140		510
BR50DS6T-84.6	2×25/2×18.5	2×84.5	2×42.3	6+6 × ϕ75 × 55	2×4.75		2×45	2×116/2×193	2×140		536
BR60DS6T-101.0	2×30/2×22	2×101.1	2×50.5	6+6 × ϕ82 × 55	2×4.75		2×53	2×135/2×220	2×140		538

Smart Product Selector

Enter your technical requirements and let our intelligent calculator instantly recommend the optimal product tailored to your project specifications.

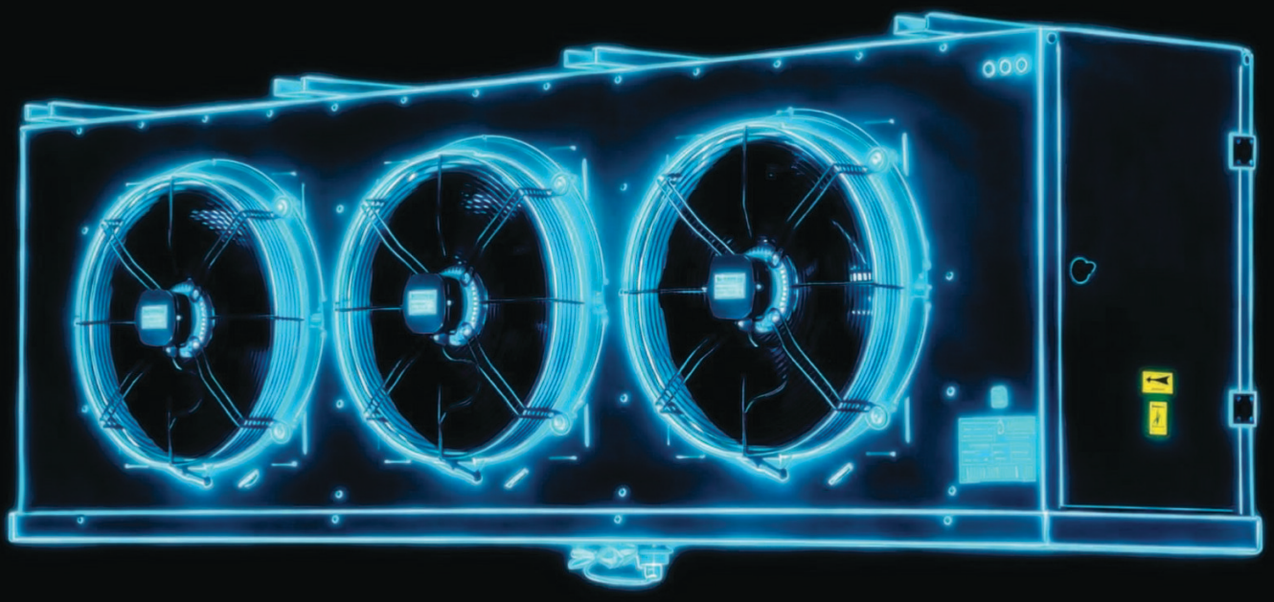


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Scan Me



Evaporator



Product Introduction

The evaporator is responsible for absorbing heat from the target environment and evaporating the liquid refrigerant. During this process, the refrigerant absorbs thermal energy and transforms into low-pressure vapor, completing the refrigeration cycle.
Precise heat exchange surface design, uniform refrigerant distribution, and high thermal efficiency enhance cooling capacity while reducing overall energy consumption.

Guidelines for Naming

Refrigeration System Naming

The refrigeration system consists of the condenser, evaporator, and condenser unit, each of which is assigned a separate code for registration in the Rahkaran system and for labeling on .the product. The naming method is defined as follows

Evaporator

:A ten-digit code is used for naming the evaporator, structured as follows

XC	EV	X	X	XX	XX	X
The first two letters of XCOOL	Evaporator	Shape and design	Number of fans	Fan diameter	Fin spacing	Model type

The structure is as follows

The first two characters represent XCOOL Company

The third and fourth characters indicate the type of equipment, which in this case is the Evaporator

The fifth character represents the evaporator shape and design, determined based on its 21 application and according to Table

The sixth character indicates the number of fans used in the unit

The seventh and eighth characters specify the fan diameter

The ninth and tenth character represents the fin spacing

(Finally, the eleventh character indicates the model type or design series (A/B/C)

Abbreviation code	Type of design / shape
C	Cubic
D	Dual Flow
S	Slope
T	Tunnel

Evaporator Design and Shape Type .

Example

XC	EV	C	2	04	08	A
The first two letters of XCOOL	Evaporator	Shape and design	Number of fans	Fan diameter	Fin spacing	Model type

- Qn — Namnal capacity of evaporator (KW)
- Qr — Required capacity (KW)
- Fc — Capacity Correction factor (table 1)
- Fr — Refrigeration Correction factor (table 2)

Qn= Qr*Fc*Fr

- Tr — room temperature
- Te — evaporating temperature
- T — room temperature and evaporation difference

Dt=Tr-Te

Table 1

△T=10K	△T=9	△T=8	△T=7	△T=6	△T=5	△T°K
1.01	1.14	1.28	1.52	1.82	2.25	0
1.15	1.30	1.47	1.73	2.06	2.54	-5
1.26	1.41	1.62	1.90	2.30	2.81	-10
1.34	1.50	1.73	2.03	2.46	3.02	-15
1.39	1.57	1.79	2.13	2.58	3.20	-20
1.44	1.62	1.86	2.19	2.64	3.33	-25
1.46	1.65	1.90	2.26	2.69	3.40	-30
1.47	1.68	1.95	2.29	2.75	3.48	-35
1.47	1.70	1.98	2.30	2.80	3.56	-40
1.49	1.70	2.00	2.32	2.86	3.64	-45

Fc

EVAPORATOR TEMPERATURE °C

Table 2

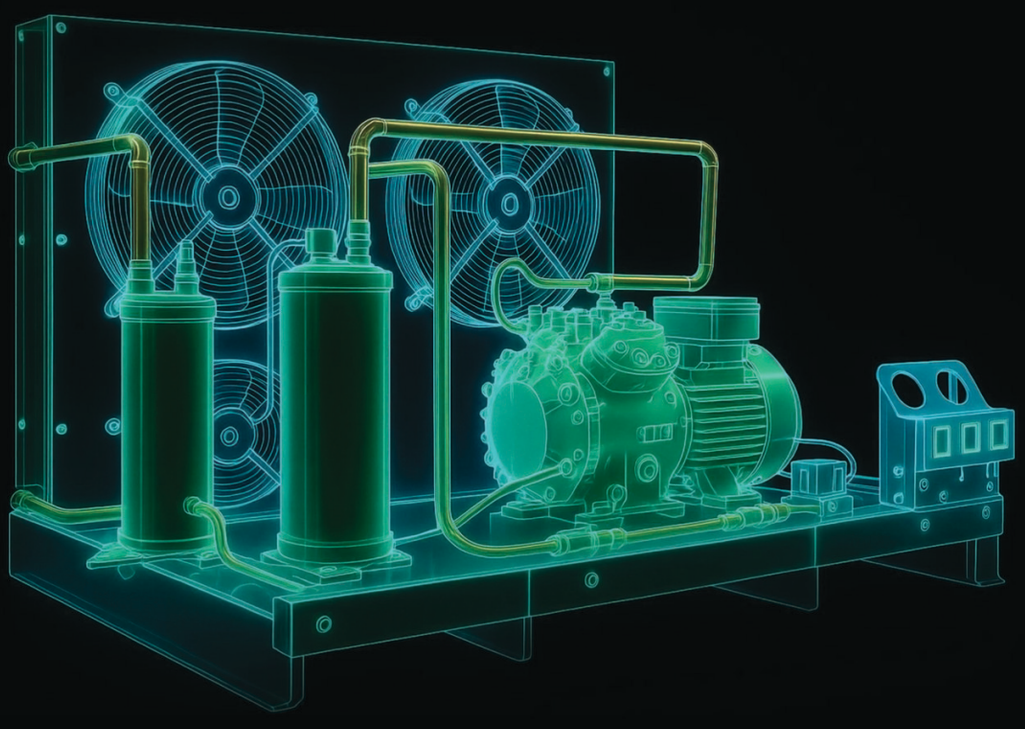
REFRIGERANT CORRECTION FACTOR (Fr)			
Refrigerant	R22	R134a	R404a
Fr	0.96	0.93	1.00

Evaporator Technical Specifications



Fin Spacing (mm)	Fan Diameter (mm)	Number of Fans	Shape & Design	SC2 Nominal Cooling Capacity (kW)	Air Flow (m^3/h)	Weight (kg)	Outlet Connection Size (inch)	Inlet Connection Size (inch)	Fan Voltage Range (V)	Heater Voltage Range (V)	Fan Power (W)	Heater Power (W)	Model
8.6	400	1	Cubic	2.18	3600	82	1/2	7/8	380-220	220	300	4*700	XCEVC14008A
8.6	400	1	Cubic	3	4000	87	1/2	7/8	380-220	220	300	4*800	XCEVC14008B
8.6	400	1	Cubic	4.29	3500	92	1/2	7/8	380	220	300	4*800	XCEVC14008C
8.6	400	2	Cubic	5.55	7200	129	1/2	1 1/8	380	220	600	4*1200	XCEVC24008A
8.6	400	2	Cubic	6.32	8100	137.25	1/2	1 1/8	380	220	600	4*1500	XCEVC24008B
8.6	400	2	Cubic	8.76	7000	147.55	1/2	1 1/8	380	220	600	4*1500	XCEVC24008C
8.6	500	2	Cubic	12	16500	180.9	5/8	1 3/8	380	220	1600	4*2000	XCEVC25008A
8.6	500	2	Cubic	17.55	14500	233.7	5/8	1 3/8	380	220	1600	6*1700	XCEVC25008B
8.6	500	3	Cubic	22.94	21000	302	5/8	1 5/8	380	220	2400	7*2000	XCEVC35008A
12	630	2	Cubic	22kw-(R404) (TE:-40, DT:7)	29850	444	7/8	2 1/8	380	220	5600	9*1700	XCEVC26312B
12	630	2	Cubic	25kw-(R404) (TE:-40, DT:7)	31980	510	7/8	2 1/8	380	220	5600	9*2000	XCEVC26312C
8.6	500	3	Cubic	22.94	21750	302	5/8	1 5/8	380	220	2400	7*2000	XCEVC35008B

Condensing Unit



Product Introduction

The condensing units manufactured by XCOOL are custom-designed and assembled according to specific project requirements using internationally renowned and reliable components.

These units are ideally suited for:
- Above-zero and sub-zero cold storage facilities
- Food, agriculture, and pharmaceutical industries
- Retail stores and restaurants
- Industrial and semi-industrial refrigeration applications

Part Naming Convention

Condensing Unit

An eleven-character code is used to designate condensing units, as described below:

XC	UC	XX	X	X	XX	X
Parts	Unit	Compressor Power (HP)	No. of Rows	No. of Fans	Fan Diameter	Type

As follows:

The first two characters represent XCOOL (XC).

The third and fourth characters specify the equipment type, which in this case is a condensing unit.

The fifth and sixth characters indicate the power of the compressor installed on the unit, in horsepower.

The seventh character indicates the number of rows used in the unit.

The eighth character indicates the number of fans.

The ninth and tenth characters indicate the fan diameter, in centimeters.

The eleventh character indicates the model type (based on ΔT).

Example:

XC	UC	03	1	1	50	B
Parts	Unit	Compressor Power 3 HP	One Row	One Fan	Diameter	Type

Technical Specifications of the Condensing Unit



Air Flow (m^3/h)	Connection Size (inch)		Fan Power (W)	Compressor	Model
	Inlet	Outlet			
6640	7/8	5/8	800	BR3Z4-18.1	XCUC031150B
6395	1 1/8	5/8	600	BR4Z4-22.7	XCUC041240A
7640	1 1/8	5/8	600	BR5G4-18.1	XCUC051240B
13840	1 1/8	5/8	1600	BR7G4-26.8	XCUC071250A
15000	1 1/8	7/8	1600	BR10G4-34.7	XCUC101250B
21530	1 3/8	7/8	2400	BR15G4-48.5	XCUC151350A
22650	1 3/8	7/8	2400	BR20G4-56.3	XCUC201350B
40600	1 5/8	1 1/8	4800	BR25DS6-42.3	XCUC252650A
42900	1 5/8	1 1/8	4800	BR30DS6-50.5	XCUC302650B
13840	1 1/8	5.8	1600	BR5G4-18.1	XCUC051250A
15000	1 1/8	7.8	1600	BR7G4-26.8	XCUC071250B
21530	1 3/8	7.8	2400	BR10G4-34.7	XCUC101350A
22650	1 3/8	7.8	2400	BR15G4-48.5	XCUC151350B
30000	1 5/8	1 1/8	32000	BR20G4-56.3	XCUC201450A

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