



CONDENSING UNIT CATALOG

**CONDENSING UNIT & MONOBLOCK & EVAPORATOR
REFRIGERATION & A/C**



www.rigidhvac.com www.rigidchill.com
info@rigidhvac.com ann@rigidhvac.com

Tel. : +86-579-88379768
Fax : +86-579-88885399

Headquarters :
Room 601, HQ Economy Building , No. 508 Zhenxing Road, Lanxi city,
Zhejiang , China 321100.

Factory :
Huang Ni Ling Industrial Park, Yunshan Street, Lanxi city,
Zhejiang, China 321100.



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COMPANY PROFILE



YOUR TRUSTED AND RELIABLE PARTNER OF COMMERCIAL REFRIGERATION SOLUTIONS

We understand your business and help you choose the best refrigeration solutions that fits you.



RIGID Refrigeration : Leading Innovation in Condensing and Refrigeration Units.

RIGID Refrigeration specializes in advanced condensing and refrigeration units designed for commercial and industrial applications. All our refrigeration units comply with European and CB standards, ensuring reliability and safety. Our key technologies include:

- **Natural Refrigerant** – Eco-friendly & compliant with global environmental standards.
- **Inverter Technology** – Ensures precise temperature control, quiet operation, and extended compressor life.
- **Energy-Saving & Efficient** – Designed to reduce energy consumption while maintaining high performance.

As a pioneer in energy-efficient solutions, RIGID offers advanced water-cooled and inverter condensing units designed to help our partners reduce energy consumption and operating costs.

Choosing RIGID Refrigeration means choosing efficiency, reliability, and success for your refrigeration system. Our products are ideal for a wide range of applications including petrol stations, convenience stores, butcher shops, bakeries, ice machines, cold rooms, milk tanks, restaurants, hotels, catering services, and commercial kitchens.

RIGID Refrigeration proudly supports the food retail and service industries with customer-driven innovations and dependable cooling solutions.



Refrigeration and Air Conditioning Expert & Manufacturer in China.



DESIGN AND PRODUCTION FACTORY



LARGE LASER CUTTING MACHINE



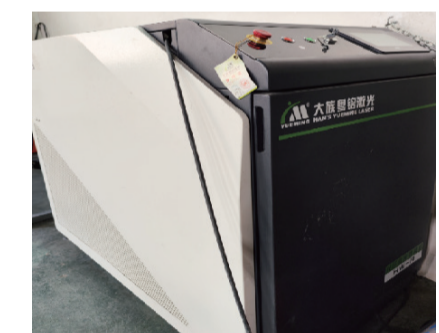
AUTOMATIC BENDING MACHINE



CNC BENDING MACHINE



AUTO STRAIGHTENING CUTTING MACHINE



LASER WELDING MACHINE

R290 HORIZONTAL CONDENSING UNIT



Reliable, Energy-Efficient Cooling with Horizontal Condensing Units.

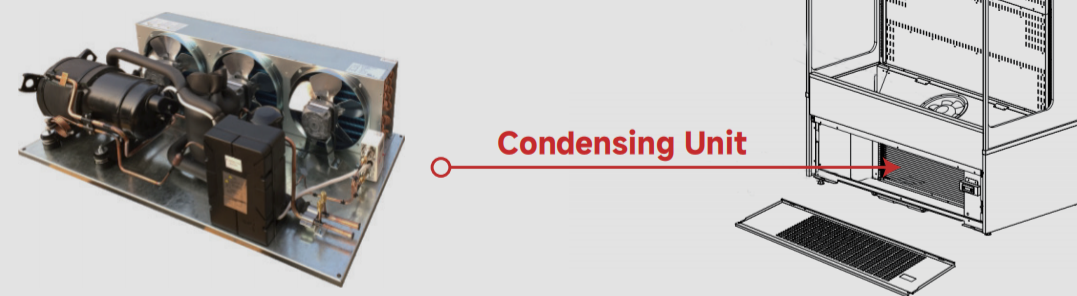
A condensing unit is essential to the refrigeration cycle - removing heat to maintain stable and safe temperatures. Whether you're cooling a single walk-in freezer or managing a full network of display cases and storage systems, RIGID Refrigeration delivers dependable solutions.

RIGID built-in horizontal condensing units feature inverter technology for precise temperature control and reduced energy use, and operate with natural R290 refrigerant, making them both eco-friendly and cost-effective.

With RIGID, you benefit from flexible configurations, energy-saving innovations, and a reputation for reliability and performance trusted across the industry.

DESIGNED FOR HIGH PERFORMANCE IN DEMANDING COMMERCIAL ENVIRONMENTS:

- Supermarkets
- Cold storage warehouse
- Food processing facilities
- Walk-in cooler and freezer
- Restaurants and commercial kitchen



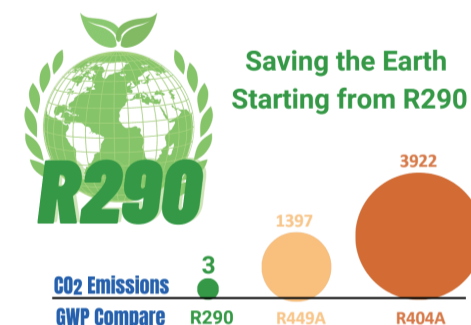
Non-Inverter R290 Condensing Unit

Model	Power supply	Horsepower
RG-HSR7.5EL	220~240V/50Hz	0.75 HP
RG-HSR10EL	220~240V/50Hz	1 HP
RG-HSR15EL	220~240V/50Hz	1.5 HP
RG-HSR20EL	220~240V/50Hz	2 HP

Inverter R290 Condensing Unit

Model	Power supply	Horsepower
RG-BHSR10EL	220V	1 HP
RG-BHSR20EL	220V	2 HP
RG-BHSR30EL	220V	3 HP

>PRODUCT FEATURES

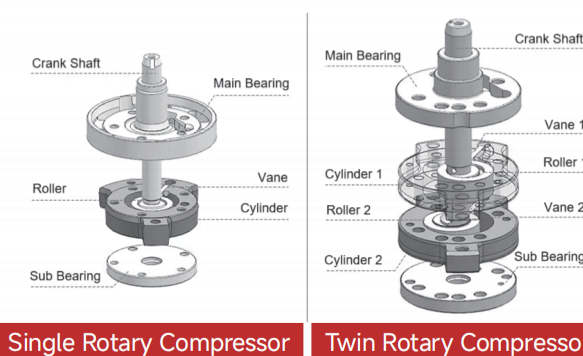
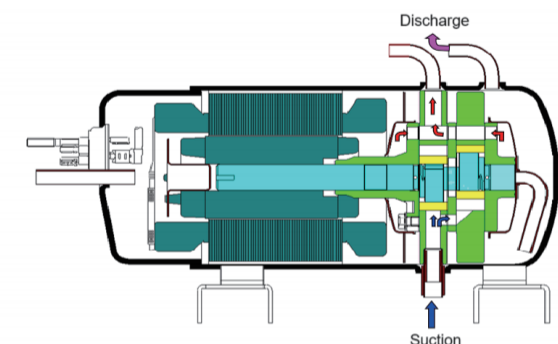


01

Adopts Natural R290 refrigerant - Delivers maximum environmental benefits as a climate-friendly, sustainable solution.

02

Sanyo Rotary Compressors - Renowned for their exceptional reliability, backed by a long-standing performance record in the Japanese market.

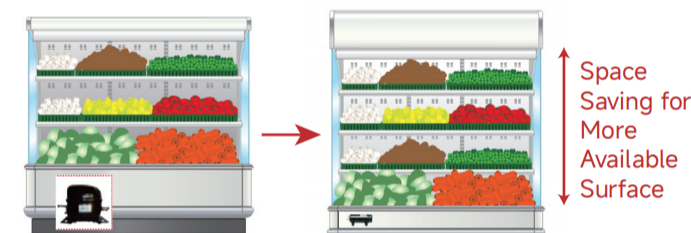
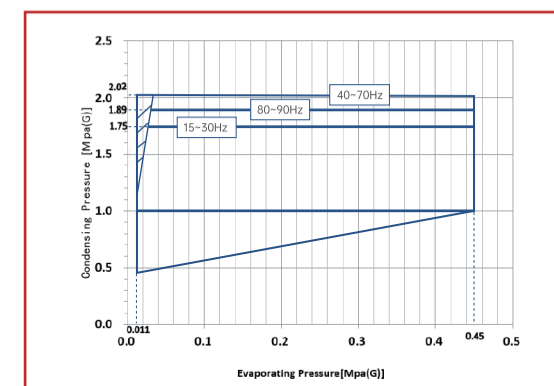


03

Dual-rotor Balanced Design - Reduces vibration typically generated by rotating components, ensuring smoother and quieter operation.

04

Versatile Compressor - Optimized for both medium & low temperature refrigeration, with outstanding performance in LBP applications.

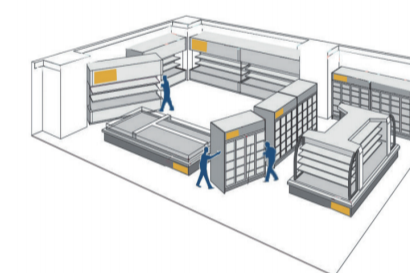


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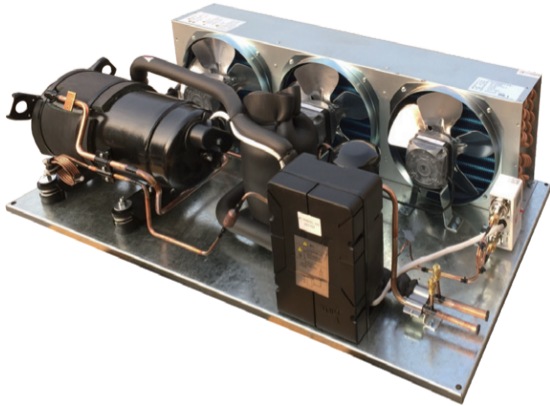
Compact & Low-profile Design - Maximizes display space by allowing for a larger merchandising area per case.

06

Self-contained Mobility - Enables easy relocation of cabinets within supermarkets, eliminating the need for centralized compressor racks and freeing up valuable food space.



HORIZONTAL
CONDENSING UNIT



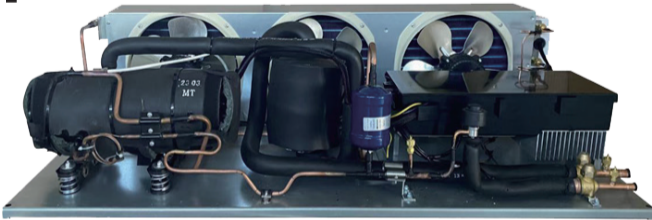
R448A R449A R404A

MEDIUM-LOW TEMPERATURE
SINGLE PHASE 220V-240V/50HZ

Model			RG-HSN75EL	RG-HSN10EL	RG-HSN15EL	RG-HSN20EL	RG-HSN25EL	RG-HSN30EL
Nominal input (W)			780	850	1250	1550	1700	2300
Power supply			Single phase 220V-240V/50Hz					
Refrigerant max.(KG)			R404A(1.2)	R404A(1.2)	R404A(1.4)	R404A(3.0)	R404A(3.0)	R404A(3.0)
Start-up current (A)			25	27	37	50	53	60
Max. running current (A)			4.3	5.2	6.5	8.6	9.7	12.7
Evap. temp. range (°C)			-40~-5°C					
Ambient temp. (°C)			-7~43°C					
Condenser	Style	Row*Loop	4 Row 4.5 Loop	4 Row 4.5 Loop	5 Row 4.5 Loop	5 Row 4.5 Loop	5 Row 4.5 Loop	6 Row 4.5 Loop
		Length	540mm	540mm	630mm	900mm	995mm	1060mm
	Fan motor	Output power*QTY	16W*2	16W*2	16W*2	16W*3	16W*3	16W*3
		Diameter (mm)*QTY	Φ 230*2	Φ 230*2	Φ 230*2	Φ 230*3	Φ 230*3	Φ 230*3
		Air flow (m³/hr)	820*2	820*2	820*2	820*3	820*3	820*3
Pipe (mm)	Gas inlet OD		Φ12.7(1/2")					
	Liquid outlet OD		Φ 9.52(3/8")					
Out dimension	Length (mm)		680	680	790	1050	1150	1210
	Width (mm)		485	485	485	540	540	570
	Height (mm)		261	261	261	263	263	263
Installation dimension (L*W)			660*465	660*465	770*465	1030*520	1125*520	1190*550
Refrigeration capacity	Evap. temp.(°C)		Refrigeration capacity: W Ambient temp.:32°C					
	-40		505	635	840	1260	1405	1620
	-35		655	825	1090	1580	1760	2080
	-30		810	955	1190	1890	2110	2630
	-25		975	1210	1545	2310	2575	3320
	-20		1190	1440	1865	2730	3040	3955
	-15		1430	1710	2100	3095	3450	4540
	-10		1795	2070	2426	3680	4100	5485
	-5		2135	2370	2790	4100	4570	6485
Wiring capacity	Leakage protector	Rated current (A)	10	10	15	25	25	30
		Leak current (mA)	30	30	30	30	30	30
	Diameter (mm²)	In10m	2.0	2.0	2.0	4.0	4.0	4.0
		In 20m	2.0	2.0	3.5	6.0	6.0	6.0
		In 30m	3.5	3.5	3.5	6.0	6.0	8.0

Note: Single phase 220V/60HZ horizontal condensing units are available.

INVERTER
CONDENSING UNIT



R448A R449A R404A

MEDIUM-LOW TEMPERATURE
SINGLE PHASE 220V

Model		RG-BHSN15EL			RG-BHSN20EL			RG-BHSN25EL		
Power supply		Single phase 220V								
Evap. temp. range (°C)		-45~0°C								
Ambient temp. (°C)		-7~43°C								
Refrigerant max. (KG)		R404A(3.0)								
Compressor		C-6RHSV63L0B			C-7RHSV113L0B			C-7RHSV153L0B		
Max working current(A)		7			9.7			13.5		
Condenser	Spec(Low*Loop*Length)	5*4.5*630			5*4.5*900			6*4.5*1060		
	Fan motor output power (W) *QTY (PCS)	16*2			16*3			16*3		
	Fan diameter (mm)	∠ 34° ϕ 230								
	Air volume (m³/hr)	820*2			820*3			820*3		
Pipe (mm)	Suction inlet OD	Φ12.7(1/2")								
	Liquid outlet OD	Φ 9.52(3/8")								
Out dimension	Length (mm)	790			1050			1210		
	Width (mm)	540			540			570		
	Height (mm)	263			263			263		
Refrigeration capacity	Evap. temp.(°C)	Refrigeration capacity: W Ambient temp.:32°C								
		40HZ	60HZ	80HZ	40HZ	60HZ	80HZ	40HZ	60HZ	80HZ
	-40	420	660	920	690	1040	1385	835	1250	1670
	-35	520	820	1150	875	1310	1750	1070	1605	2140
	-30	640	1050	1420	1040	1560	2080	1357	2040	2715
	-25	700	1100	1550	1275	1912	2550	1710	2565	3420
	-20	800	1280	1780	1500	2250	3000	2035	3050	4070
	-15	980	1560	2150	1700	2550	3400	2340	3510	4680
	-10	1265	2025	2850	2025	3040	4050	2850	4275	5700
	-5	1358	2164	3015	2430	3645	4860	3340	5010	6680

OUTDOOR CONDENSING UNIT

RIGID Refrigeration – Outdoor Condensing Units for Commercial & Industrial Applications

RIGID outdoor condensing units are purpose-built for high, medium, and low temperature refrigeration applications. Equipped with premium components – including Sanyo rotary compressors, Panasonic scroll compressors, and Emerson scroll compressors – our units are manufactured under strict quality standards and incorporate the latest advancements in refrigeration technology.

The outdoor condensing units are widely used in cold rooms, process cooling, retail refrigeration, and industrial chillers. Designed to meet diverse cooling needs, RIGID units range from 1 HP to 25 HP, including parallel-compressor systems for large-scale or modular installations.



>Product Features

01. HIGH RELIABILITY

Built with globally recognized compressors and high-quality components, each unit ensures long-term reliability and durability with integrated protection devices.

02. WIDE APPLICATION RANGE

Ideal for a variety of refrigeration needs – from low-temperature freezing to high-temperature cooling—suitable for supermarkets, restaurants, food processing, and fuel stations.

03. SPACE EFFICIENT DESIGN

Compact footprint and modular layout allow side-by-side installation, maximizing space efficiency and simplifying maintenance.

04. HIGH AMBIENT COMPATIBILITY

Engineered for hot climates, with an optimized condenser design, variable-speed fan control, and dependable performance even in extreme temperatures up to 45°C.

05. QUIET OPERATION

Noise-reducing compressor jackets and internal sound insulation ensure silent operation. Panasonic scroll compressor options offer even quieter performance.

06. USER-FRIENDLY AND EFFICIENT

RIGID's outdoor condensing units feature an intuitive interface, low energy consumption, fast commissioning, and easy maintenance – making them the ideal solution for convenience stores, cold rooms, petrol stations, food retailers, milk cooling, and ice-making equipment.

COMMERCIAL APPLICATIONS

A complete range of air and water-cooled indoor and outdoor complete all size and applications.

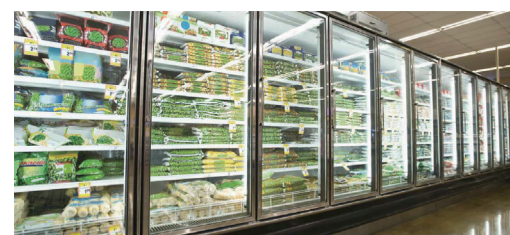
At RIGID, we listen to your needs and provide tailored systems and services that support your business goals while optimizing your investment. As a trusted global player in the commercial refrigeration market, we take pride in delivering innovative, customer-focused solutions that lead the industry forward.



REFRIGERATED WAREHOUSES AND
PRODUCING AREAS



FOOD PROCESSING PLANTS



CONVENIENCE STORES



FOOD RETAIL REFRIGERATION



PROCESS KITCHENS



RESTAURANT COLD ROOMS



MILK AND ICE MAKING EQUIPMENT

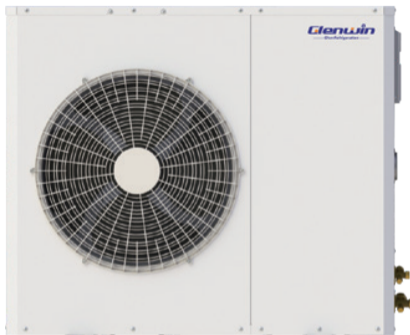


DISTRIBUTION CENTER

SANYO COMPRESSOR
CONDENSING UNIT

R448A R449A R404A

MEDIUM-LOW TEMPERATURE
220V~240V/50HZ AND 380V/50HZ



Model		RG-SN10EL	RG-SN15EL	RG-SN20EL	RG-SN25EL	RG-SN25FL	RG-SN30FL
Horsepower (HP)		1 HP	1.5 HP	2.5 HP	3 HP	2.5 HP	3 HP
Evap.temp. range (°C)		-45~-5°C					
Ambient temperature (°C)		-7~43°C					
Refrigerant		R404A, R448A, R449A					
Power supply		Single phase 220V/50Hz				Three phase 380V/50Hz	
Compressor	Type	Sanyo rotary refrigeration compressor					
	Model	C-R133L4AL	C-R220L4AL	C-3RV359L4AAL	C-3R463L4AAL	C-3RP359L4AAL	C-3RP547L4AAL
	Power	1 HP	1.5 HP	2.5 HP	3 HP	2.5 HP	3 HP
Fan motor	Fan QTY (PCS)	1	1	1	1	1	1
	Power supply	Single phase 220V/50Hz					
	Input power (W)	160W	160W	160W	160W	160W	160W
	Fan spec	φ496	φ496	φ496	φ496	φ496	φ496
	Air volume (m³/h)	3600	3600	3600	3600	3600	3600
Stop valve	Suction inlet OD	12.7(1/2")		15.88(5/8")			
	Liquid outlet OD	9.52(3/8")		9.52(3/8")			
Refrigeration capacity	Evap. temp.(°C)	Refrigeration capacity: W Ambient temp.: 32°C					
	-40°C	505	840	1260	1620	1260	1620
	-35°C	655	1090	1580	2080	1580	2080
	-30°C	810	1190	1890	2630	1890	2630
	-25°C	975	1545	2310	3320	2310	3320
	-20°C	1190	1865	2730	3955	2730	3955
	-15°C	1430	2100	3095	4540	3095	4540
	-10°C	1795	2426	3680	5485	3680	5485
	-5°C	2135	2790	4100	6485	4100	6485
Product dimension (mm) L*W*H		995*420*675			1000*420*822	995*420*675	1000*420*822
Install dimension (mm) Hole-L*W		φ12-585*380			φ12-585*380	φ12-585*380	φ12-585*380
		18-A			18-B	18-A	18-B

Note: Single phase 220V/60Hz outdoor condensing units are available.

PANASONIC COMPRESSOR
CONDENSING UNIT

R448A R449A R404A

MEDIUM-LOW TEMPERATURE
THREE PHASE 380V/50HZ



Model		RG-SN4OFL	RG-SN50FL	RG-SN6OFL	RG-SN7OFL	RG-SN8OFL	RG-SN10OFL	RG-SN125FL	
Horsepower (HP)		4 HP	5 HP	6 HP	7 HP	8 HP	10 HP	12.5 HP	
Evap.temp. range(°C)		-45~5°C							
Ambient temperature (°C)		0~40°C							
Refrigerant		R404A							
Power supply		Three phase 380V/50Hz							
Compressor model		C-SBN303L8A	C-SBN373L8A	C-SBN453L8A	3CC120SA03	3CC137SA03	3CC171SA03	3CC216SA03	
Fan motor	Fan QTY (PCS)	1	2	2	2	2	2	2	
	Power supply	Single phase 220V/50Hz							Three phase 380V/50Hz
	Input power (W)	160W	160W	160W	160W	160W	250W	415W	
	Fan spec.	φ496	φ496	φ496	φ496	φ496	φ500	φ550	
	Air volume (m³/h)	3600	3600*2	3600*2	3600*2	3600*2	4800*2	6500*2	
Stop valve	Suction inlet OD	15.88(5/8")	19.05(3/4")			22.2(7/8")	28.5(11/8")		
	Liquid inlet OD	9.52(3/8")	12.7(1/2")			15.88(5/8")	15.88(5/8")		
Refrigeration capacity	Evap.temp. (°C)	Refrigeration capacity:W Ambient temp.:32°C							
	-45°C	1560	1990	2315	3355	3590	4240	5290	
	-40°C	1920	2480	2880	4055	4350	5235	6530	
	-35°C	2425	3080	3580	4910	5275	6470	8070	
	-30°C	3075	3835	4455	5945	6390	7980	9960	
	-25°C	3880	4770	5535	7195	7745	9850	12290	
	-20°C	4830	5930	6890	8705	9390	12165	15185	
	-15°C	5925	7375	8570	10535	11380	15025	18755	
	-10°C	7170	9170	10660	12750	13790	18550	23155	
	-5°C	8560	11415	13255	15430	16720	22910	28595	
Product dimension (mm) L*W*H		1000*420*822	1010*440*1220			1290*780*920	1290*780*1130	1550*890*1150	
Install dimension (mm) Hole-L*W		φ12-585*380	φ12-585*400			φ 12-(420+420)*740		φ 12-(570+570)*860	
		18-B	18-C			18-D		18-E	

Note: 3 phase 440V~460V/60Hz or 3 phase 200V~220V/60Hz or 3 phase 380V/60Hz outdoor condensing units are all available

EMERSON SCROLL COMPRESSOR (ZB SERIES) OUTDOOR CONDENSING UNIT

R448A R449A R404A

HIGH-MEDIUM TEMPERATURE
SINGLE PHASE 220V/50HZ AND THREE PHASE 380V/50HZ



Model		RG-GN20EM	RG-GN30EM	RG-GN40EM	RG-GN20FM	RG-GN30FM	RG-GN40FM	RG-GN50FM	RG-GN60FM	RG-GN70FM	RG-GN80FM	RG-GN100FM	RG-GN130FM	RG-GN150FM	RG-GN200FM	RG-GN220FM	RG-GN250FM		
Power supply		Single phase 220V/50Hz			Three phase 380V/50Hz			Three phase 380V/50Hz											
Evap.temp. range (°C)		-25~5°C						-25~5°C										-20~10°C	
Ambient temperature (°C)		0~40°C						0~40°C											
Refrigerant		R404A, R448A, R449A						R404A, R448A, R449A											
Pressure controller		High pressure & Low pressure switch						High pressure & Low pressure switch											
Emerson compressor	Power	2HP	3HP	4HP	2HP	3HP	4HP	5HP	6HP	7HP	8HP	10HP	13HP	15HP	20HP	22HP	25HP		
	Model	ZB15KQE	ZB21KQE	ZB29KQE	ZB15KQE	ZB21KQE	ZB29KQE	ZB38KQE	ZB45KQE	ZB48KQE	ZB58KQE	ZB76KQE	ZB95KQE	ZB114KQE	ZB130KQE	ZB150KQE	ZB190KQE		
Condenser fan motor	Fan QTY (PCS)	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2		
	Power supply	Single phase 220V/50Hz						Single phase 220V/50Hz						Three phase 380V/50Hz					
Pipe (mm/inch)	Power (W)	160W						160W				250W		415W		780W	800W		
	Suction inlet OD	15.88(3/8")						19.05(3/4")				22.2(7/8")	28.5(1 1/8")			34.93(1 3/8")		41.27(1-5/8")	
External dimension (mm) L*W*H	Liquid outlet OD	9.52(3/8")						12.7(1/2")				15.88(5/8")				19.05(3/4")		22.22(7/8")	
		995	1000		995	1000		1010				1340	1340	1550	1550	1805	1955	1955	
Install dimension (mm) Hole-L*W		420	420		420	420		440				780	780	890	890	961	961	961	
		675	822		675	822		1220				920	1130	1150	1400	1820	1820	1900	
Refrigeration capacity		ϕ 12-585*380			ϕ 12-585*380			ϕ 12-585*400				ϕ 12-(420+420)*740			ϕ 12-(570+570)*860		/	/	/
		18-A	18-B		18-A	18-B		18-C				18-D		18-E		/	/	/	
Refrigeration capacity	Evap. Temp.(°C)	Refrigeration capacity: W Ambient temp.:32°C						Refrigeration capacity: W Ambient temp.:32°C											
	-25°C	2093	3140	4250	2093	3140	4250	5340	6280	6910	7950	11160	13670	16100	/	/	/		
	-20°C	2520	3780	5150	2520	3780	5150	6380	7540	8290	9460	13300	16290	19220	20640	25520	31950		
	-15°C	3073	4610	6290	3073	4610	6290	7850	9170	10090	10770	16040	19650	23200	25420	31000	38810		
	-10°C	3666	5500	7480	3666	5500	7480	9300	10950	12040	13560	19050	23340	27600	30830	37390	46810		
	-5°C	4400	6600	8860	4400	6600	8860	11000	12890	14180	15950	22330	27360	32690	36980	44780	56060		
	0°C	5266	7900	10260	5266	7900	10260	12800	15700	17270	18500	25960	31850	37970	44000	53270	66700		
	5°C	6233	9350	12650	6233	9350	12650	15800	18600	20460	21320	29850	36600	44050	52000	62980	78850		

Note: 3 phase 460V/60Hz and 3 phase 220V/60Hz outdoor condensing units are all available.



01. HIGH EFFICIENCY ALL YEAR ROUND

Equipped with dynamic discharge valve that allows the discharge gas to reach desired pressure. This helps reduce efficiency loss by preventing gas re-compression.

03. ROBUSTNESS AND RELIABILITY

The Copeland Compliant Scroll design is tolerant to stresses caused by liquid slugging, flooded starts and debris commonly found in refrigeration systems.

02. COMPACTNESS

The small footprint of Copeland Scroll compressors enables compact system designs of condensing unit compared with reciprocating compressors.

04. SMOOTH OPERATION

Copeland Scroll compressors are designed with a discharge check valve that isolates the high pressure discharge gas, allows to start unloaded, resulting in low inrush currents.

>APPLICATIONS



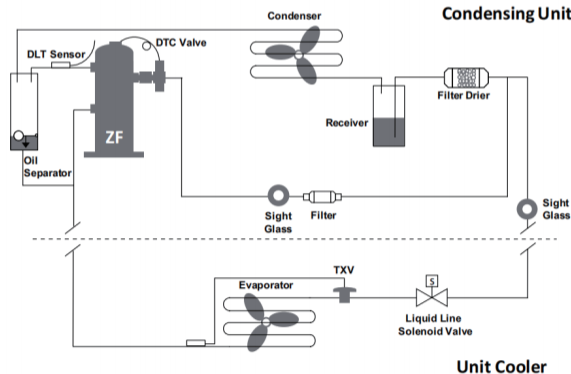
EMERSON SCROLL COMPRESSOR (ZF SERIES) OUTDOOR CONDENSING UNIT

R448A R449A R404A

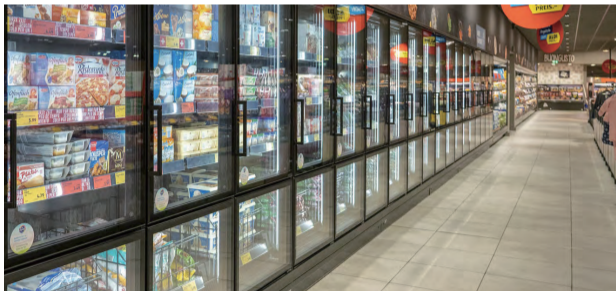
MEDIUM-LOW TEMPERATURE
THREE PHASE 380V/50HZ



Model		RG-GN30FLF	RG-GN40FLF	RG-GN50FLF	RG-GN60FLF	RG-GN70FLF	RG-GN80FLF	RG-GN100FLF	RG-GN120FLF	RG-GN150FLF	RG-GN180FLF
Power supply		Three phase 380V/50Hz				Three phase 380V/50Hz					
Evap.temp. range (°C)		-40~5°C				-40~5°C					
Ambient temperature (°C)		0~40°C				0~40°C					
Refrigerant		R404A, R448A, R449A				R404A, R448A, R449A					
Pressure controller		High pressure & Low pressure switch				High pressure & Low pressure switch					
Emerson compressor	Power	3HP	4HP	5HP	6HP	7HP	8HP	10HP	12HP	15HP	18HP
	Model	ZF09KQE	ZF13KQE	ZF15KQE	ZF18KQE	ZF25KQE	ZF28KQE	ZF34KQE	ZF41KQE	ZF49KQE	ZF54KQE
Fan motor	Fan QTY (PCS)	1	1	2	2	2	2	2	2	2	2
	Power supply	Single phase 220V/50Hz				Single phase 220V/50Hz			Three phase 380V/50Hz		
	Power (W)	160W				160W	250W		415W		780W
Pipe (mm/inch)	Suction inlet OD	15.88(5/8")		19.05(3/4")		19.05(3/4")	22.2(7/8")	28.5(1 1/8")		34.93(1 3/8")	
	Liquid outlet OD	9.52(3/8")		12.7(1/2")		12.7(1/2")	15.88(5/8")				19.05(3/4")
External dimension (mm) L*W*H		1000*420*822		1010*440*1220		1010*440*1220	1340*780*920	1340*780*1130	1550*890*1150	1550*900*1440	1805*961*1820
Install dimension (mm) Hole-L*W		φ 12-585*380		φ 12-585*400		φ 12-585*400	φ 12-(420+420)*740		φ 12-(570+570)*860		/
		18-B		18-C		18-C	18-D		18-E		/
Refrigeration capacity	Evap. Temp.(°C)	Refrigeration capacity: W Ambient temp.:32°C				Refrigeration capacity: W Ambient temp.:32°C					
	-40°C	1530	2190	2660	3290	4090	4670	5300	6710	8070	9230
	-35°C	1940	2780	3420	4170	5120	5850	6820	8560	10210	11690
	-30°C	2410	3480	4290	5170	6420	7340	8540	10620	12720	14560
	-25°C	2960	4310	5300	6340	7960	9100	10510	12980	15650	17910
	-20°C	3600	5270	6470	7700	9730	11120	12790	15710	19050	21800
	-15°C	4350	6380	7840	9300	11710	13380	15440	18900	/	/
	-10°C	5230	7660	9430	11170	13870	15850	18510	22640	/	/
	-5°C	6230	9110	11260	13360	16200	18510	22060	26990	/	/
	0°C	7390	10760	13360	15910	/	/	/	/	/	/
	5°C	8710	12610	15760	18840	/	/	/	/	/	/



>APPLICATIONS



EMERSON SCROLL COMPRESSOR (ZFL SERIES) OUTDOOR CONDENSING UNIT

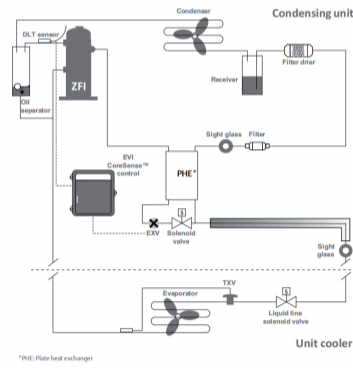
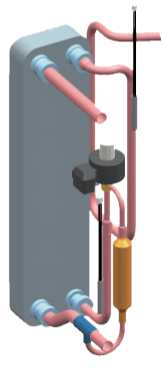
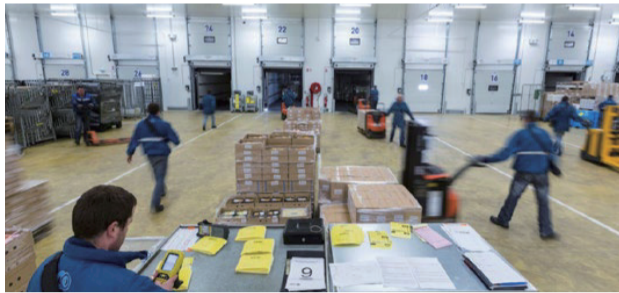
R448A R449A R404A

MEDIUM-LOW TEMPERATURE
THREE PHASE 380V/50HZ



Model		RG-GN40FLI	RG-GN60FLI	RG-GN70FLI	RG-GN80FLI	RG-GN100FLI	RG-GN120FLI	RG-GN150FLI	RG-GN200FLI	RG-GN250FLI
Power supply		Three phase 380V/50Hz			Three phase 380V/50Hz					
Evap.temp. range (°C)		-40~5°C			-40~5°C					
Ambient temperature (°C)		0~40°C			0~40°C					
Refrigerant		R404A, R448A, R449A			R404A, R448A, R449A					
Pressure controller		High pressure & Low pressure switch			High pressure & Low pressure switch					
Emerson compressor	Power	4HP	6HP	7HP	8HP	10HP	12HP	15HP	20HP	25HP
	Model	ZFI20KQE	ZFI26KQE	ZFI36KQE	ZFI39KQE	ZFI50KQE	ZFI59KQE	ZFI68KQE	ZFI81KQE	ZFI96KQE
Fan motor	Fan QTY (PCS)	1	2	2	2	2	2	2	2	2
	Power supply	Single phase 220V/50Hz			Single phase 220V/50Hz		Three phase 380V/50Hz			
	Power (W)	160W			250W		415W		780W	800W
Pipe (mm/inch)	Suction inlet OD	15.88(5/8")	19.05(3/4")		22.2(7/8")	28.5(1 1/8")		34.93(1 3/8")		41.27(1-5/8")
	Liquid outlet OD	9.52(3/8")	12.7(1/2")		15.88(5/8")				19.05(3/4")	22.22(7/8")
External dimension (mm) L*W*H		1000*420*822	1010*440*1220		1340*780*920	1340*780*1130	1550*890*1150	1550*900*1440	1805*961*1820	1955*961*1900
Install dimension (mm) Hole-L*W		φ12-585*380	φ12-585*400		φ12-(420+420)*740		φ12-(570+570)*860		/	/
		18-B	18-C		18-D		18-E		/	/
Refrigeration capacity	Evap. Temp.(°C)	Refrigeration capacity: W Ambient temp.:32°C			Refrigeration capacity: W Ambient temp.:32°C					
	-40°C	3250	5090	6290	7220	8660	10550	11970	13600	17450
	-35°C	4070	6120	7670	8800	10290	12530	14230	16230	21300
	-30°C	4990	7330	9270	10630	12400	15090	17130	19550	25700
	-25°C	6040	8740	11080	12710	14910	18160	20600	23500	30900
	-20°C	7230	10390	13090	15040	17770	21650	24560	28030	37100
	-15°C	8600	12300	15320	17580	20940	25510	/	/	44400
	-10°C	10140	14490	17740	20350	24340	29650	/	/	52900
	-5°C	11900	17010	20320	23340	27910	34010	/	/	62900
	0°C	13880	19860	/	/	/	/	/	/	/
	5°C	16110	23060	/	/	/	/	/	/	/

>APPLICATIONS



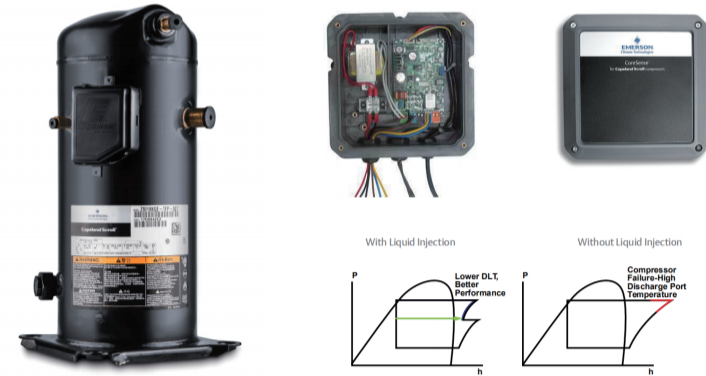
EMERSON SCROLL COMPRESSOR
OUTDOOR CONDENSING UNIT

R448A R449A R404A

MEDIUM-LOW TEMPERATURE
220V/50HZ AND 380V/50HZ



Model		RG-GN30EL	RG-GN40EL	RG-GN30FL	RG-GN40FL	RG-GN50FL	RG-GN60FL	RG-GN70FL
Power supply		Single phase 220V/50Hz		Three phase 380V/50Hz				
Evap.temp. range (°C)		-30~0°C						
Ambient temperature (°C)		0~40°C						
Refrigerant		R404A, R448A, R449A						
Pressure controller		High pressure & Low pressure switch						
Emerson compressor	Power	3HP	4HP	3HP	4HP	5HP	6HP	7HP
	Model	ZSI08KQE	ZSI11KQE	ZSI09KQE	ZSI11KQE	ZSI15KQE	ZSI18KQE	ZSI21KQE
Fan motor	Fan QTY (PCS)	1	1	1	1	2	2	2
	Power supply	Single phase 220V/50Hz						
	Power (W)	160W						
Pipe (mm/inch)	Suction inlet OD	15.88(5/8")		15.88(5/8")		19.05(3/4")		
	Liquid outlet OD	9.52(3/8")		9.52(3/8")		12.7(1/2")		
External dimension (mm) L*W*H		1000*420*822		1000*420*822		1010*440*1220		
Install dimension (mm)		Φ12-585*380		Φ12-585*380		Φ12-585*400		
Hole-L*W		18-B		18-B		18-C		
Refrigeration capacity	Evap Temp (°C)	Refrigeration capacity: W Ambient temp.: 32°C						
	-30°C	2080	2810	2340	2790	4010	5160	5770
	-25°C	2590	3600	2930	3570	5110	6380	7100
	-20°C	3190	4460	3600	4420	6310	7810	8700
	-15°C	3890	5420	4370	5380	7660	9480	10570
	-10°C	4700	6550	5250	6490	9240	11420	12740
	-5°C	5640	7880	6270	7810	11110	13660	15220
	0°C	6710	9460	7440	9380	13350	16230	18030



>APPLICATIONS



OPEN-TYPE OUTDOOR
CONDENSING UNIT

R448A R449A R404A

MEDIUM-LOW TEMPERATURE
220V~240V/50HZ, 380V/50HZ



Model		RG-VSN15EL	RG-VSN25EL	RG-VSN30EL	RG-VSN25FL	RG-VSN30FL
Horsepower(HP)		1.5 HP	2.5 HP	3 HP	2.5 HP	3 HP
Evap.temp.range(°C)		-45~-5°C				
Ambient temperature(°C)		-7~43°C				
Refrigerant		R404A, R448A, R449A				
Powersupply		Sing phase 220V/50Hz			Three phase 380V/50Hz	
Compressor	Type	Sanyo rotary refrigeration compressor				
	Model	C-R220L4AL	C-3RV359L4AAL	C-3R463L4AAL	C-3RP359L4AAL	C-3RP547L4AAL
	Power	1.5 HP	2.5 HP	3 HP	2.5 HP	3 HP
Fan motor	Fan QTY (PCS)	1	1	1	1	1
	Power supply	Single phase 220V/50Hz				
	Input power (W)	62	165	205	165	205
	Fan diameter (mm)	φ300	φ350	φ400	φ350	φ400
	Air volume (m³/h)	1200	2100	3600	2100	3600
Stop valve	Suction inlet OD	12.7(1/2")	15.88(5/8")			
	Liquid outlet OD	9.52(3/8")	9.52(3/8")			
Refrigeration capacity	Evap. temp.(°C)	Refrigeration capacity: W Ambient temp.: 32°C				
	-40°C	840	1260	1620	1260	1620
	-35°C	1090	1580	2080	1580	2080
	-30°C	1190	1890	2630	1890	2630
	-25°C	1545	2310	3320	2310	3320
	-20°C	1865	2730	3955	2730	3955
	-15°C	2100	3095	4540	3095	4540
	-10°C	2426	3680	5485	3680	5485
	-5°C	2790	4100	6485	4100	6485
Product dimension (mm) L*W*H		615*540*431	680*580*540	720*600*540	680*580*540	720*600*540
Install dimension (mm) L*W		595*520	650*550	690*570	650*550	690*570

Note: Single phase 220V/60Hz open-type outdoor condensing units are available.

DIRECT CURRENT TECHNOLOGY FOR COMMERCIAL REFRIGERATION

RIGID REFRIGERATION offers a full range of air-cooled and water-cooled indoor and outdoor condensing units - engineered to meet a wide variety of sizes and applications in both commercial and industrial settings.

TYPICALLY
20%~30%
ENERGY SAVINGS



>PRODUCT FEATURES

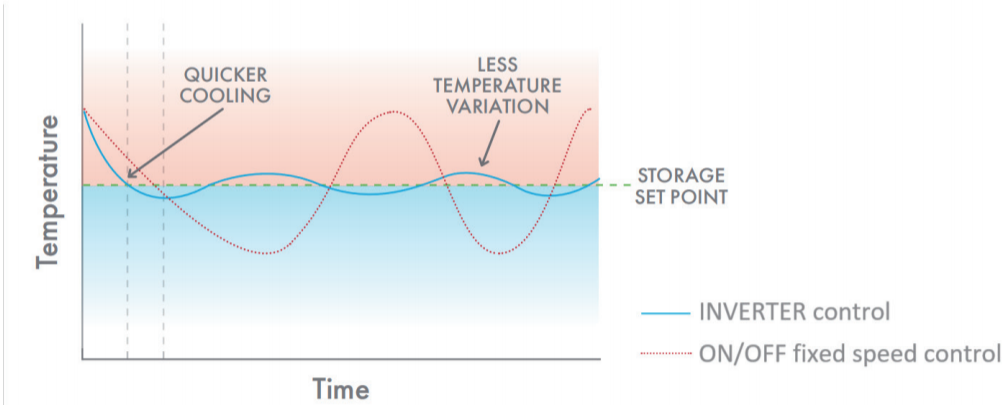
Key Features & Benefits:

- 01. **DC Inverter Compressor** - Delivers low noise, high efficiency, and up to 35% annual energy savings.
- 02. **DC Inverter Fan** - Automatically adjusts fan speed based on demand, quieter operation and efficiency.
- 03. **Advanced Soundproofing** - Thickened sound-absorbing insulation significantly reduces noise, quiet operation.
- 04. **Integrated Cabin Design** - No need for a separate machine room - quick to install and space efficient.
- 05. **Compact Footprint** - Smaller, smarter design saves installation space without compromising performance.

>TEMPERATURE CONTROL COMPARISON

Inverter Control vs. Fixed-Speed Systems

Unlike traditional ON/OFF systems, inverter technology continuously adjusts to the cooling load, minimizing energy waste and reducing operational costs. RIGID inverter condensing units typically deliver 20%-30% greater energy savings compared to fixed-speed systems.



DC INVERTER OUTDOOR CONDENSING UNIT



INVERTER

R448A R449A R404A

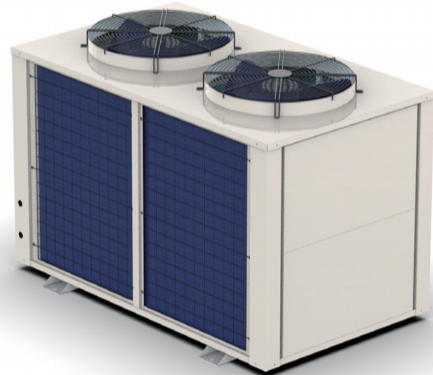
MEDIUM-LOW TEMPERATURE
SINGLE PHASE 220V / THREE PHASE 380V

Model		RG-BSN30EL	RG-BSN40EL	RG-BSN50FL	RG-BSN60FL	RG-BSN70FL	RG-BSN80FL	RG-BSN100FL
Power supply		Single phase 220V	Three phase 380V					
Evap. temp. range (°C)		-35~0°C						
Ambient temp. (°C)		-7~43°C						
Refrigerant		R404A, R448A, R449A						
Pressure sensor		High pressure: 0MPa~5MPa						
		Low pressure: 0MPa~2MPa						
Fan motor	Fan motor*QTY (PCS)	1	1	2	2	2	2	2
	Power supply	DC 312V						
	Power (W)	100W						
Pipe (mm)	Gas inlet OD	Φ15.88(5/8")		Φ22.7(7/8")			Φ22.7(7/8")	
	Liquid outlet OD	Φ9.52(3/8")		Φ12.7(1/2")			Φ15.88(5/8")	
Out dimension	Length (mm)	1000	1060	1010	1010	1010	1180	1180
	Width (mm)	420	420	440	440	440	480	480
	Height (mm)	822	920	1220	1220	1220	1545	1545
Install dimension (mm) Hole-L*W		φ 12-585*380		φ 12-585*400			φ 12-820*450	
	Evap. temp.(°C)	Refrigeration capacity: W		Ambient temp.: 32°C		Speed: 75Hz		
Refrigeration capacity	-35°C	2490	3360	3850	5010	5760	5940	6820
	-30°C	3100	4190	4830	6280	7220	7700	8830
	-25°C	3810	5140	5960	7800	8960	9680	11110
	-20°C	4630	6250	7280	9530	10950	11920	13680
	-15°C	5590	7550	8820	11460	13170	14480	16620
	-10°C	6720	9070	10610	13570	15600	17420	19990
	-5°C	8010	10810	12670	15860	18230	20800	23870

AIR COOLED MULTI-COMPRESSOR CONDENSING UNIT

Smarter Cooling. Greater Efficiency. One Integrated Solution.

RIGID's parallel-compressor outdoor condensing unit consolidates multiple refrigeration systems into a single, remotely located solution - enhancing energy efficiency, reducing noise, and streamlining operations. Ideal for supermarkets, retailers, and commercial kitchens, this condensing unit brings powerful advantages to modern refrigeration infrastructure.



01. ENERGY EFFICIENCY

Traditionally, each refrigeration unit - whether a glass-door freezer, multideck display chiller, or freezer cabinet - has its own compressor, releasing excess heat into the store or kitchen. This heat increases the burden on air conditioning system, leading to higher energy consumption and operating costs.

By centralizing all refrigeration into a single remote system, you not only eliminate localized heat but also significantly reduce HVAC loads, lower energy bills, and extend equipment lifespan. Roof-mounted systems also help reduce in-store noise levels for a better customer and staff experience.

02. DESIGN EFFICIENCY

Parallel-compressor outdoor condensing unit is composed of one **INVERTER** Panasonic scroll compressor and one **FIXED SPEED** Panasonic scroll compressor to handle the refrigeration load from individual pieces equipment. The minimum refrigeration load can reach 30% of the inverter Panasonic scroll compressor.

03. INSTALLATION EFFICIENCY

With conventional refrigeration systems, each roof mounted condensing unit requires a hole through the roof so that refrigerant piping can be run to the equipment. The more remote systems you have, the more holes you have in your roof. However, RIGID Parallel-compressor outdoor condensing unit has one hole only. This single roof penetration point reduce installation costs and roof leakage.

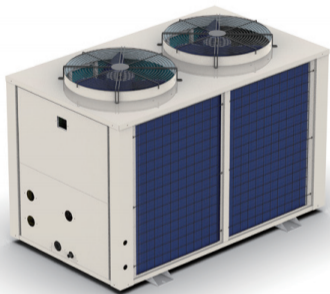
>PARALLEL-COMPRESSOR CONDENSING UNIT ARE USED IN MANY PLACES.



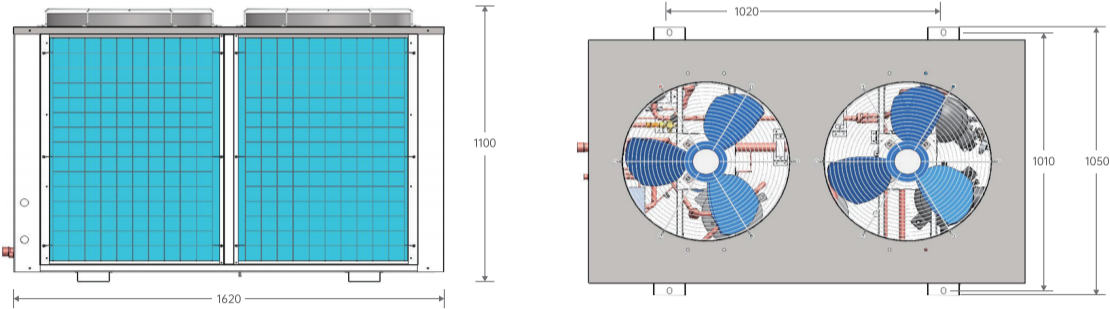
PARALLEL-COMPRESSOR CONDENSING UNIT

R448A R449A R404A

HIGH-MEDIUM-LOW TEMPERATURE
THREE PHASE 380V/50HZ



Model		RG-BSN120FL	RG-BSN140FL	RG-BSN160FL	RG-BSN180FL
Horsepower(HP)		12 HP	14 HP	16 HP	18 HP
Power supply		Three phase 380V/50Hz			
Evap.temp. range(°C)		-30°C~10°C			
Ambient temperature(°C)		0~40°C			
Refrigerant		R404A			
Compressor	Type	Variable speed	Variable speed	Variable speed	Variable speed
	Model	3CB084ZA0M	3CB084ZA0M	3CB084ZA0M	3CB084ZA0M
	Type	Fixed speed	Fixed speed	Fixed speed	Fixed speed
	Model	C-SBN303L8A	C-SBN453L8A	3CC137SA03	3CC171SA03
Pressure controller		High pressure: Fixed Low pressure: Adjustable			
Fan motor	Fan QTY (PCS)	2	2	2	2
	Power supply	Single phase 220V/50Hz			
	Input power (W)	280W*2	280W*2	280W*2	280W*2
Pipe (mmφ)	Suction inlet OD	34.93(1-3/8")			
	Liquid outlet OD	19.05(3/4")			
Refrigeration capacity	Evap. temp.(°C)	Refrigeration capacity: W Ambient temp.: 32°C			
	-30°C	11860	13330	15360	17020
	-20°C	17630	19820	22390	25310
	-15°C	21220	24020	26880	30720
	-10°C	25450	29130	32280	37300
	-5°C	30755	35675	39115	45645
	0°C	36060	42220	46020	53990
Product dimension (mm)L*W*H	Length	1620			
	Width	1050			
	Height	1100			
Install dimension (mm) Hole- L*W		1020*1010			



WATER-COOLED CONDENSING UNIT (PRO)

R290 Water-Cooled Condensing Unit Efficient. Quiet. Eco-Friendly.

RIGID R290 water-cooled condensing unit is a compact, energy-efficient solution for both positive and negative temperature applications. It replaces traditional compressor racks with a water-loop system that removes heat via a rooftop dry cooler, reducing refrigerant use and simplifying installation. Featuring a DC inverter compressor, electronic expansion valve, and intelligent controls, it ensures quiet operation, precise temperature control, and excellent energy savings. Ideal for use with multidecks, serve-over counters, freezer units, semi-vertical cabinets, and cold rooms, it's a smart choice for modern refrigeration needs.



>WATER-LOOP SYSTEM ADVANTAGES

01. Energy Efficiency

Inverter compressor combined with water-cooled condenser, less power, higher cooling

02. Simplified Installation

Water loop design makes system setup faster and easier compared to traditional refrigerant piping systems.

03. Flexible Layout

Changing store layouts is simple – just disconnect and reconnect water lines without complex refrigerant work.

04. Space Optimization

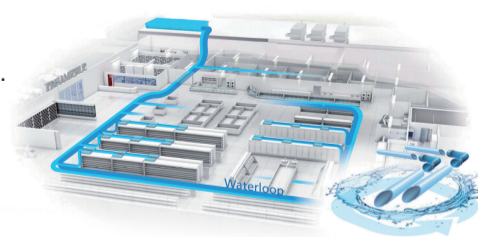
No need for a central machine room, which frees up valuable retail floor space.

05. Cost-Efficient Relocation

High return on investment – easily relocated with minimal infrastructure changes.

06. Reduced Gas Leakage

Lower refrigerant charge and system isolation greatly reduce the risk of leaks.



>KEY BENEFITS

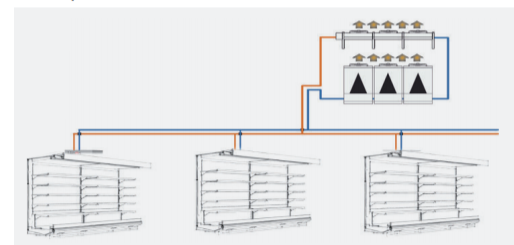
01. Stable Product Temperature – Ensures consistent cooling for superior food preservation.

02. Lower Energy Consumption – Inverter technology and water cooling reduce operational costs.

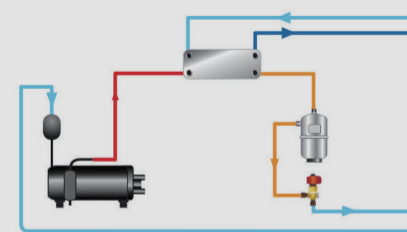
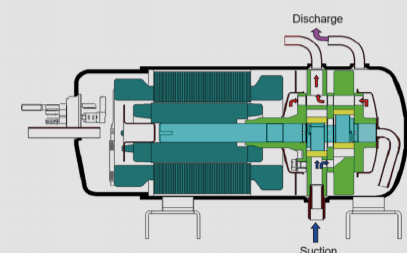
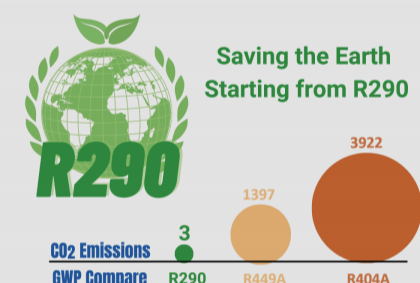
03. Enhanced Reliability – Factory-assembled units ensure consistent quality and dependable performance.

04. Minimized Downtime – System design limits potential damage in the event of failure.

05. All-Climate Compatibility – Easily adapts to varying environmental conditions around the world.



>FEATURES



ENVIRONMENTAL FRIENDLY

The models of the R290 range water cooled condensing unit characterized by climate-friendly and less refrigerant charge.

01. R290 Refrigerant.
02. Overall charge reduction-80%.
03. No more long refrigerant pipes.
04. Only small and compact refrigerant systems.
05. Overall leaks reduction-85%.
06. Limited charge on units.

HIGH RELIABILITY

Pursuing longer life and high reliability, the compressor we used is famous brand Sanyo refrigeration compressor.

01. Sanyo compressor with reputation for outstanding reliability.
02. Water-cooled condenser increase compressor efficiency.
03. Simple installation, no maintenance, no welding needed.

ENERGY EFFICIENCY

Guarantees the best operating conditions for each independent unit, up to 25% energy savings in comparison to other systems.

01. Sanyo compressor with intelligent inverter and controller.
02. Individual control of suction and discharge pressure.
03. Wide modulation range brings low pressure difference.
04. Reduced compressor cycling.

FLEXIBILITY

The self-contained water-cooled condensing unit offers maximum flexibility in in terms of moving or modification.

01. Smart layout, cabinet is easily moved everywhere.
02. Flexible sales area. Easy installation or de-installation.
03. Critical components fully contained within cabinet.
04. No plant room required.

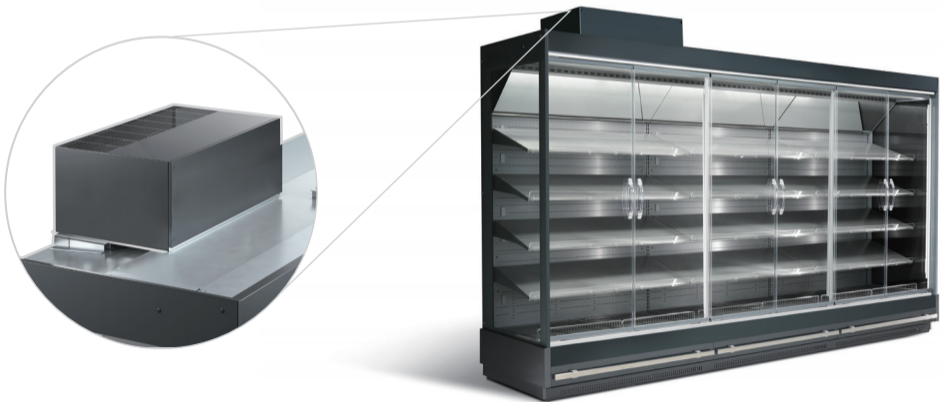
INVERTER WATER COOLED
CONDENSING UNIT(LOW PROFILE)

R448A R449A R404A

MEDIUM-LOW TEMPERATURE
SINGLE PHASE 220V/50HZ OR 220V/60HZ



Model		RG-BHSN10EL-SL	RG-BHSN20FL-SL	RG-BHSN30EL-SL
Horsepower (HP)		1 HP	2 HP	3 HP
Power supply		Single phase 220V/50Hz or 220V/60Hz		
Evap. temp. range (°C)		-40~-5°C		
Ambient temperature (°C)		-7~43°C		
Compressor model		C-7RHSV63L0B	C-7RHSV113L0B	C-7RHSV153L0B
Refrigerant		R404A, R448A, R449A		
Speed range		30~80Hz		
Max run current (A)		4	9	13
Water pipe	Water inlet OD	3/4" External Thread		
	Water outlet OD	3/4" External Thread		
Refrigerant pipe	Gas inlet OD	Φ12.7 (1/2")		
	Liquid outlet OD	Φ9.52 (3/8")		
Our dimension	L*W*H (mm)	850*425*385		
Installation pitch of holes		φ8-830*365		
Refrigeration capacity	Evap. temp.(°C)	Refrigeration capacity: W Ambient temp.:32°C Speed:80Hz		
	-40°C	920	1380	1670
	-35°C	1150	1750	2140
	-30°C	1420	2080	2715
	-25°C	1550	2550	3420
	-20°C	1780	3000	4070
	-15°C	2150	3400	4680
	-10°C	2850	4050	5700
	-5°C	3015	4860	6680



NON-INVERTER WATER COOLED
CONDENSING UNIT(LOW PROFILE)

R448A R449A R404A

MEDIUM-LOW TEMPERATURE
SINGLE PHASE 220V/50HZ



Model		RG-HSN10EL-SL	RG-HSN15EL-SL	RG-HSN20EL-SL	RG-HSN25EL-SL	RG-HSN30EL-SL
Horsepower (HP)		1 HP	1.5 HP	2 HP	2.5 HP	3 HP
Power supply		220V/50Hz				
Evap. temp. range (°C)		-40~-5°C				
Ambient temp. (°C)		-7~43°C				
Refrigerant max.(KG)		R404A(1.2)	R404A(1.4)	R404A(3.0)	R404A(3.0)	R404A(3.0)
Start-up current (A)		27	37	50	53	60
Max. running current (A)		4	5	8	9	12
Pressure controller		High & Low pressure switch				
Water pipe	Inlet OD	3/4" External Thread				
	Outlet OD	3/4" External Thread				
Refrigerant pipe	Inlet OD	12.7 (1/2")				
	Outlet OD	9.52 (3/8")				
External dimension	Length(mm)	850	850	850	850	850
	Width(mm)	425	425	425	425	425
	Height(mm)	340	340	340	340	340
Installation pitch of holes		φ8-830*365				
Refrigeration capacity	Evap. Temp.(°C)		Refrigeration capacity: W Ambient temp.:32°C			
	-40°C		635	840	1260	1405
	-35°C		825	1090	1580	1760
	-30°C		955	1190	1890	2110
	-25°C		1210	1545	2310	2575
	-20°C		1440	1865	2730	3040
	-15°C		1710	2100	3095	3450
	-10°C		2070	2426	3680	4100
	-5°C		2370	2790	4100	4570
Wiring capacity	Leakage protector	Rated current (A)	10	15	25	25
		Leak current (mA)	30	30	30	30
	Diameter (mm²)	In 10m	2.0	2.0	4.0	4.0
		In 20m	2.0	3.5	6.0	6.0
		In 30m	3.5	3.5	6.0	6.0
		In 30m	3.5	3.5	6.0	8.0

Note: Single phase 220V/60Hz water cooled condensing units are available.

INVERTER WATER COOLED CONDENSING UNIT



R448A R449A R404A

MEDIUM-LOW TEMPERATURE
SINGLE PHASE 220V OR THREE PHASE 380V

Model		RG-BSN30EL-SL	RG-BSN40EL-SL	RG-BSN50EL-SL	RG-BSN60EL-SL	RG-BSN70EL-SL	RG-BSN80EL-SL	RG-BSN100EL-SL
Horsepower (HP)		3 HP	4 HP	5 HP	6 HP	7 HP	8 HP	10 HP
Power supply		Single phase 220V	Three phase 380V					
Evap. Temp. Range (°C)		-40~-5°C						
Ambient temp. (°C)		-7~43°C						
Refrigerant		R404A, R448A, R449A						
Speed range		30~80Hz	30-90Hz					
Max run current (A)		12	12	14	16	16	18	20
Water pipe	Water inlet OD	3/4"	1-1/4"(DN32)					
	Water outlet OD	3/4"	1-1/4"(DN32)					
Refrigerant pipe	Gas inlet OD	Φ12.7(1/2")	Φ15.88(5/8")	19.05(3/4")			Φ22.7(7/8")	
	Liquid outlet OD	Φ9.52(3/8")	Φ9.52(3/8")	12.7(1/2")			Φ15.88(5/8")	
External dimnesion	L*W*H (mm)	975*420*680						
Installation pitch of holes		φ 12-530*380						
Refrigeration capacity	Evap.Temp. (°C)	Refrigeration capacity: W		Ambient temp.:32°C		Speed:80Hz		
	-40°C	1670	2466	2802	3082	3110	3649	4147
	-30°C	2970	3799	4317	4748	5391	6326	7189
	-20°C	4362	5912	6719	7390	8394	9849	11193
	-10°C	5969	8804	10005	11005	12236	14357	16315

CONDENSING UNITS
AT HIGH TEMPERATURE

AIR CONDITIONING
FOR HEAT RECOVERY

WATER CONDENSING
UNITS AT POSITIVE
TEMPERATURE

WATERLOOP

DRY-COOLER
WITH HYDRAULIC
GROUP

CONDENSING UNITS
NEGATIVE TEMPERATURE

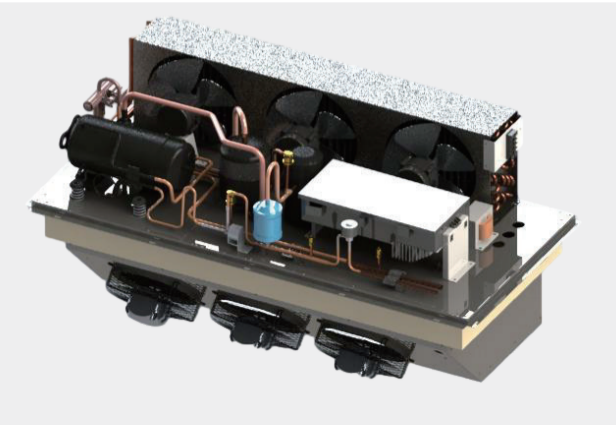
CONDENSING UNITS
POSITIVE TEMPERATURE

ALL-IN-ONE MONOBLOCKS REFRIGERATION UNIT



THE FUTURE OF REFRIGERATION IS NATURAL

As the world shifts toward sustainable solutions, RIGID Monoblock Refrigeration Units with natural refrigerant R290 (propane) are setting the new standard for eco-friendly and energy-efficient cooling. Widely adopted across Europe - especially in supermarkets and cold rooms - R290 is the refrigerant of choice for businesses committed to environmental responsibility and superior efficiency. When it comes to balancing performance with sustainability, no alternative matches hydrocarbons like propane.

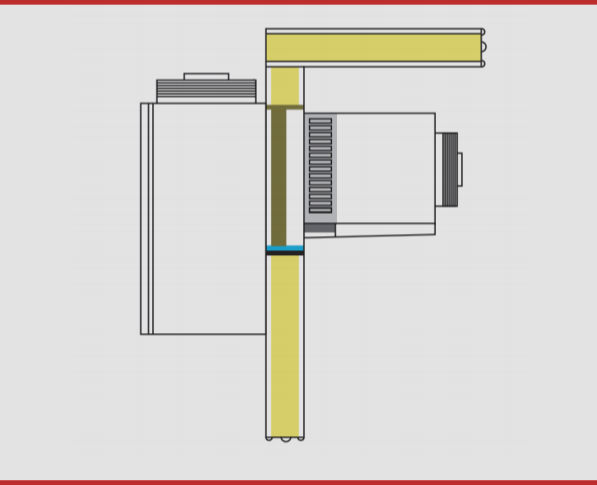


WHY CHOOSE RIGID MONOBLOCK UNITS?

RIGID's Monoblock Refrigeration System is an all-in-one solution. Pre-assembled, pre-charged, and factory-tested, it's ready for immediate installation - no separate components, no complex setup.

One section of the unit is mounted inside the cold room (evaporator), while the other is mounted outside (condenser and compressor). This plug-and-play design significantly reduces installation time and costs, making it ideal for rapid deployment in small to mid-sized cold storage applications.

WHY CHOOSE RIGID MONOBLOCK UNITS? SIMPLE. SMART. SUSTAINABLE.



01. Pre-Charged with R290 Refrigerant.
02. Quick, Plug-and-Play Installation.
03. Sanyo DC Inverter Compressor.
04. Electronic Expansion Valve.
05. Automatic Hot Gas Defrost.
06. Available in 220V / 50Hz ~ 60Hz.
07. Eco-Friendly, Energy-Saving Operation.
08. Supports Medium & Low Temperature Applications.

WALL-MOUNTED MONOBLOCK REFRIGERATION UNIT

R448A R449A R404A

MEDIUM-LOW TEMPERATURE
SINGLE PHASE 220V/50HZ OR 220V/60HZ

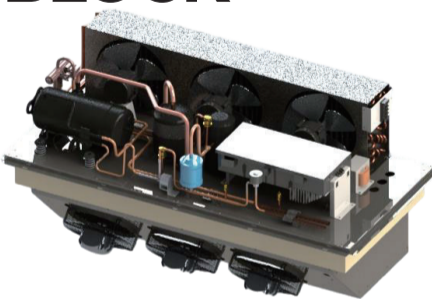


Model		RG-BYTCN10EL	RG-BYTCN20EL	RG-BYTCN30EL	RG-BYTCN40EL
Horsepower (HP)		1 HP	2 HP	3 HP	4 HP
Power supply		Single phase 220V/50Hz or 220V/60Hz			
Evap. Temp. Range (°C)		-40~-5°C			
Ambient Temp. (°C)		-7~43°C			
Refrigerant		R404A, R448A, R449A			
Max. run current (A)		5	9	13	18
Rated input power		780	1550	2260	3200
Compressor		Sanyo inverter compressor			
		C-6RVN63L0B	C-7RVN113L0B	C-7RVN153L0B	C-RZ420L4BAL
Speed range		30~80Hz			
Defrost		Hot gas defrost			
Pressure control		High pressure switch/Low pressure switch			
Condenser fan motor	Power (W)	120	150	120	150
	QTY (PCS)	1	1	2	2
Evaporator fan motor	Power (W)	80	120	80	120
	QTY (PCS)	1	1	2	2
External dimension	Length ±3 (mm)	600	720	925	1025
	Width ±3(mm)	710	890	890	980
	Height ±3 (mm)	710	825	825	950
Net weight (KGS)		71 KG	82 KG	105 KG	150 KG
Refrigeration capacity	Evap. Temp.(°C)	Refrigeration capacity: W Ambient temp.: 32°C Speed: 70Hz			
	-35°C	760	1520	2050	2840
	-25°C	820	2300	3230	4050
	-15°C	1560	3050	4350	5800
	-5°C	2250	4280	6850	9100

ROOF-MOUNTED MONOBLOCK REFRIGERATION UNIT

R448A R449A R404A

MEDIUM-LOW TEMPERATURE SINGLE
SINGLE PHASE 220V/50HZ OR 220V/60HZ



Model		RG-BYTDN10EL	RG-BYTDN20EL	RG-BYTDN30EL
Horsepower (HP)		1 HP	2 HP	3 HP
Power supply		Single phase 220V/50Hz or 220V/60Hz		
Evap. Temp. Range (°C)		-40~-5°C		
Ambient Temp. (°C)		-7~43°C		
Refrigerant		R404A, R448A, R449A		
Max. run current (A)		5	9	13
Rated input power		780	1550	2260
Compressor		Sanyo inverter compressor		
		C-6RHSV63L0B	C-7RHSV113L0B	C-7RHSV153L0B
Speed range		30~80Hz		
Defrost		Hot gas defrost		
Pressure control		High pressure switch/Low pressure switch		
Condenser fan motor	Power (W)	23	23	23
	QTY (PCS)	2	3	3
Evaporator fan motor	Power (W)	36	36	36
	QTY (PCS)	2	3	3
External dimension	Length ±3 (mm)	937	1187	1347
	Width ±3(mm)	522	577	607
	Height ±3 (mm)	590	590	590
Refrigeration capacity	Evap. Temp.(°C)	Refrigeration capacity: W Ambient temp: 32°C Speed: 70Hz		
	-35°C	760	1520	2050
	-25°C	820	2300	3230
	-15°C	1560	3050	4350
	-5°C	2250	4280	6850

HOT GAS DEFROST SYSTEM

The Advanced Hot Gas Defrost System

RIGID's Hot Gas Defrost System offers fast, reliable, and energy-efficient defrosting, enhancing productivity and preserving perishables. Available in two versions – cooling only and heating & cooling – RIGID's hot gas defrost systems are engineered for simplicity and high performance across various applications, including:

01. Cold storage warehouses
02. Agricultural processing
03. Fruit ripening chambers
04. Mushroom cultivation rooms
05. Temperature-controlled environments for produce during winter

> SMART REFRIGERATION STARTS WITH SMARTER DEFROSTING.

Hot gas defrost is an energy-saving alternative to traditional electric defrost systems. It works by redirecting hot discharge gas from the compressor through the evaporator coil. This rapidly melts accumulated frost without activating coil heaters. The gas then condenses back into liquid and returns to the system. This approach leads to faster defrost cycles, less temperature fluctuation, and lower energy consumption.

Choose RIGID's Hot Gas Defrost System for maximum efficiency, stable performance, and long-term savings.

> HOT GAS DEFROST VS. ELECTRIC DEFROST

ELECTRIC DEFROST vs. HOT GAS DEFROST		
Number of defrost	4@40 minites/day	4@10 minites/day
Steaming	Steaming is produced by excessive heat generated by coil heaters	Limited steaming is created because of the efficient use of hot gas as well as shorter defrost times
Overall investment	Lower initial investment Higher monthly energy bills Higher labor cost	Slightly higher initial investment Lower monthly energy bills Lower labor cost
Run time	18 hours	22 hours
Average box temperature rise	15-20°F	2-3°F

> HOT GAS DEFROST BENEFITS

DEPENDABLE PERFORMANCE

Fast and efficient defrosting, reduce downtime and improve system reliability, it is ideal for demanding commercial and industrial applications.

ENHANCED PRODUCT INTEGRITY

Shorter defrost cycles mean more stable box temperatures, preserving the freshness and quality of your perishable goods.

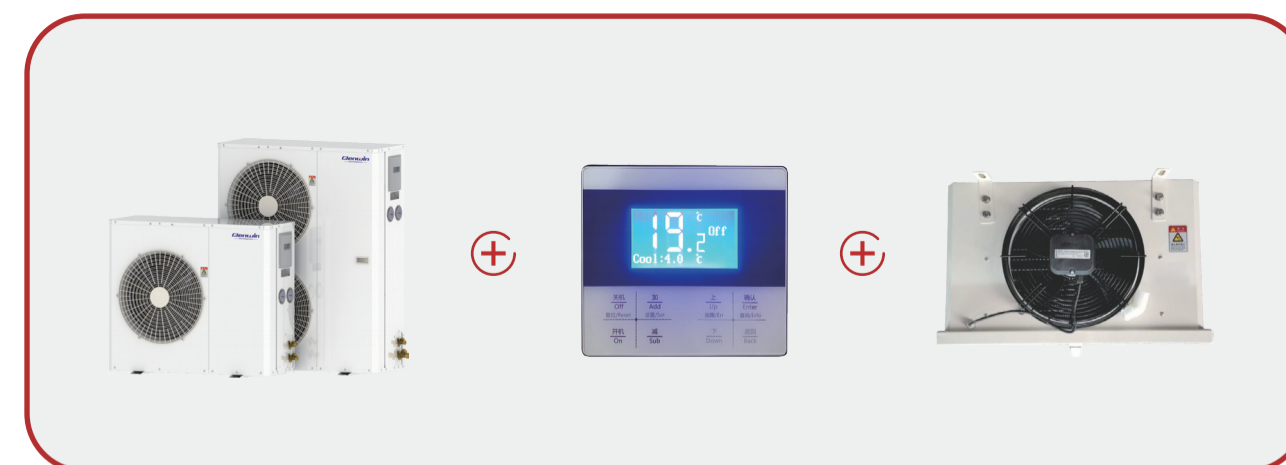
SIGNIFICANT ENERGY SAVINGS

Compared to electric defrost systems, hot gasdefrost offers substantial reductions in power usage, saving thousands of dollars annually with intelligent defrost management.

HOT GAS DEFROST REFRIGERATION SYSTEM (COOLING ONLY)



HOT GAS DEFROST REFRIGERATION SYSTEM (HEATING AND COOLING)



>APPLICATIONS



> EVAPORATOR PARAMETERS
(HOT GAS DEFROST)

Hot Gas Defrost * Sanyo Compressor

Medium-Low Temperature

Horsepower	Power supply	Condensing unit		Match evaporator model
		Model	Compressor	
2.5 HP	Single phase 220V/50Hz	RG-SN25EL-R	C-3RV359L4AAL	RG-DD30-302E-R
3 HP	Single phase 220V/50Hz	RG-SN30EL-R	C-3R463L4AA	RG-DD40-302E-R
2.5 HP	3 phase 380V/50Hz	RG-SN25FL-R	C-3RP359L4AAL	RG-SD30-401F-R
3 HP	3 phase 380V/50Hz	RG-SN30FL-R	C-3RP547L4AAL	RG-SD40-401F-R

Note: Please refer to the parameters of Sanyo compressor outdoor condensing units.

Hot Gas Defrost * Panasonic Scroll Compressor

Medium-Low Temperature

Horsepower	Power supply	Condensing unit		Match evaporator model
		Model	Compressor	
4 HP	3 phase 380V/50Hz	RG-SN40FL-R	C-SBN303L8A	RG-DD50-352F-R
5 HP	3 phase 380V/50Hz	RG-SN50FL-R	C-SBN373L8A	RG-DD60-402F-R
6 HP	3 phase 380V/50Hz	RG-SN60FL-R	C-SBN453L8A	RG-DD70-402F-R
8 HP	3 phase 380V/50Hz	RG-SN80FL-R	3CC137SA03	RG-DD100-403F-R
10 HP	3 phase 380V/50Hz	RG-SN100FL-R	3CC171SA03	RG-DD120-453F-R
12.5 HP	3 phase 380V/50Hz	RG-SN125FL-R	3CC216SA03	RG-DD150-503F-R

Note: Please refer to the parameters of Panasonic scroll compressor outdoor condensing units.

Hot Gas Defrost * Emerson Scroll Compressor (ZF Series)

Medium-Low Temperature

Horsepower	Power supply	Condensing unit		Match evaporator model
		Model	Compressor	
3 HP	3 phase 380V/50Hz	RG-GN30FLF-R	ZF09KQE	RG-DD40-302F-R
4 HP	3 phase 380V/50Hz	RG-GN40FLF-R	ZF13KQE	RG-DD50-352F-R
5 HP	3 phase 380V/50Hz	RG-GN50FLF-R	ZF15KQE	RG-DD60-402F-R
6 HP	3 phase 380V/50Hz	RG-GN60FLF-R	ZF18KQE	RG-DD70-402F-R
7 HP	3 phase 380V/50Hz	RG-GN70FLF-R	ZF25KQE	RG-DD80-452F-R
8 HP	3 phase 380V/50Hz	RG-GN80FLF-R	ZF28KQE	RG-DD100-403F-R
10 HP	3 phase 380V/50Hz	RG-GN100FLF-R	ZF34KQE	RG-DD120-453F-R
12 HP	3 phase 380V/50Hz	RG-GN120FLF-R	ZF41KQE	RG-DD150-503F-R
15 HP	3 phase 380V/50Hz	RG-GN150FLF-R	ZF49KQE	RG-DD180-504F-R

Note: Please refer to the parameters of Emerson scroll compressor (ZF series) outdoor condensing units.

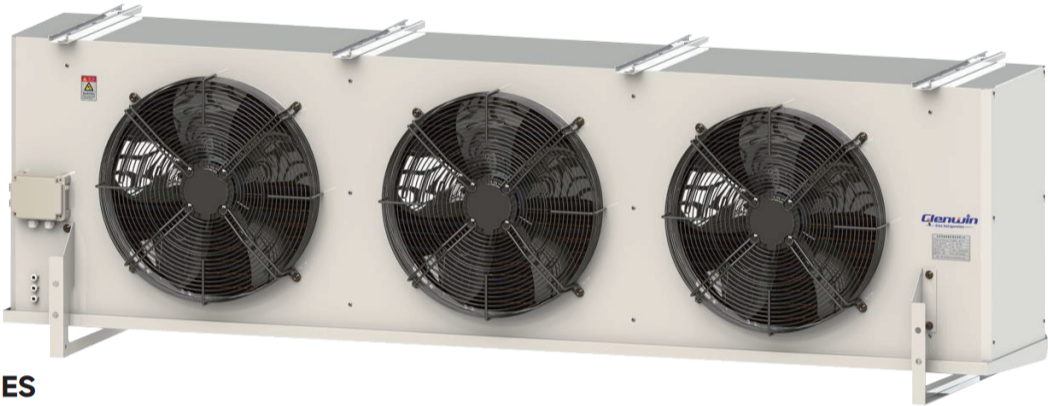
Hot Gas Defrost * Emerson Scroll Compressor (ZB Series)

High-Medium Temperature

Horsepower	Power supply	Condensing unit		Match evaporator model
		Model	Compressor	
2 HP	Single phase 220V/50Hz	RG-GN20EM-R	ZB15KQE	RG-DD30-302E-R
3 HP	Single phase 220V/50Hz	RG-GN30EM-R	ZB21KQE	RG-DD40-302E-R
4 HP	3 phase 380V/50Hz	RG-GN40FM-R	ZB29KQE	RG-DD50-352E-R
5 HP	3 phase 380V/50Hz	RG-GN50FM-R	ZB38KQE	RG-DD60-402F-R
6 HP	3 phase 380V/50Hz	RG-GN60FM-R	ZB45KQE	RG-DD70-402F-R
7 HP	3 phase 380V/50Hz	RG-GN70FM-R	ZB48KQE	RG-DD80-452F-R
8 HP	3 phase 380V/50Hz	RG-GN80FM-R	ZB58KQE	RG-DD100-403F-R
10 HP	3 phase 380V/50Hz	RG-GN100FM-R	ZB76KQE	RG-DD120-453F-R
13 HP	3 phase 380V/50Hz	RG-GN130FM-R	ZB95KQE	RG-DD150-503F-R
15 HP	3 phase 380V/50Hz	RG-GN150FM-R	ZB114KQE	RG-DD180-504F-R

Note: Please refer to the parameters of Emerson scroll compressor (ZB series) outdoor condensing units.

COLD ROOM EVAPORATOR



>KEY FEATURES

01. High-Efficiency Fork-Shaped Design

The evaporator is engineered with a fork-shaped pipeline structure, maximizing heat transfer surface area and utilizing forced-draught airflow for optimal air distribution.

02. Enhanced Coil Performance

Constructed with inner-grooved copper tubes, the evaporator increases internal surface area and reduces oil film resistance—delivering superior cooling efficiency and capacity.

03. Advanced Fin Technology

Equipped with premium-grade aluminum fins featuring a double sine wave pattern and rippled edges, the unit ensures exceptional heat transfer performance.

04. Durable, Corrosion-Resistant Casing

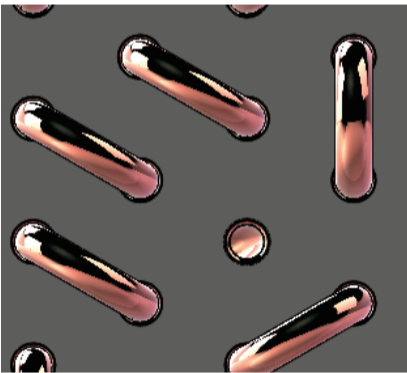
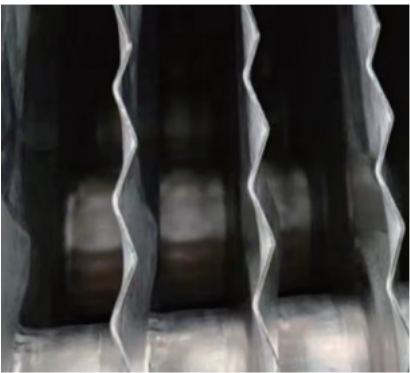
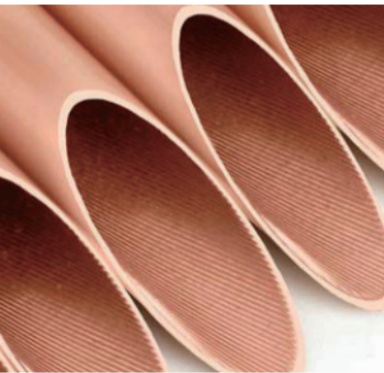
The evaporator housing undergoes a high-quality spraying process, providing excellent corrosion resistance and long-lasting durability.

05. Premium Fan Motors

All models use top-tier EBM and WEIGUANG fan motors, integrated with thermistor protection. These motors guarantee long lifespan, quiet operation, and reliable performance across both low & high temperature applications.

06. Efficient Defrosting System

Features stainless steel defrost heating tubes filled with magnesium oxide, designed for both fin and drain pan defrosting. The optimized placement ensures rapid defrost cycles, minimal temperature fluctuation, and enhanced energy efficiency in cold storage rooms.



COLD ROOM CONDENSING UNIT

Product series	Model	Capacity	Fan motor parameter				Heater parameter		Air blowing distance
		DT=7K	Air flow	Voltage	Diameter	QTY	Voltage	Input power	
		KW	m³/h	V	Φmm	PCS	V	W	
S series (single fan)	RG-DD15-301E	2.3KW	1200	220V	300	1	220V	1700	6
	RG-SD30-401F	4KW	3500	380V	400	1	220V	1700	10
	RG-SD40-401F	5KW	3500	380V	400	1	220V	2620	10
	RG-SD60-451F	8KW	6000	380V	400	1	220V	4000	12
D series (multi-fan)	RG-DD30-302E	3.5KW	2400	220V	300	2	220V	2460	7
	RG-DJ30-302E	2.4KW		220V	300	2	220V	2460	
	RG-DD40-302E	4.5KW	2400	220V	300	2	220V	2940	7
	RG-DJ40-302E	2.7KW		220V	300	2	220V	2940	
	RG-DD50-352E/F	6KW	4200	220V/380V	350	2	220V	4500	9
	RG-DJ50-352E/F	4.2KW		220V/380V	350	2	220V	4500	
	RG-DD60-402F	8KW	6000	380V	400	2	220V	5300	12
	RG-DJ60-402F	6KW		380V	400	2	220V	5300	
	RG-DD70-402F	8.5KW	6000	380V	400	2	220V	6600	12
	RG-DJ70-402F	6.5KW		380V	400	2	220V	6600	
	RG-DD80-452F	10KW	10800	380V	450	2	220V	6600	14
	RG-DJ80-452F	7KW		380V	450	3	220V	6600	
	RG-DD100-403F	12.5KW	11800	380V	400	3	220V	7900	14
	RG-DJ100-403F	8.5KW		380V	400	3	220V	7900	
	RG-DD120-453F	15.5KW	16200	380V	450	3	220V	9700	15
	RG-DJ120-453F	11.5KW		380V	450	3	220V	9700	
	RG-DD150-503F	17.5KW	18000	380V	500	3	220V	9700	17
	RG-DJ150-503F	13KW		380V	500	3	220V	9700	
	RG-DD180-504F	22.5KW	24000	380V	500	4	220V	11500	18
	RG-DJ180-504F	16KW		380V	500	4	220V	11500	
D series with long air throw	RG-DD200-504	27.5KW	32000	380V	500	4	220V	11500	19
	RG-DJ200-504F	17.8KW		380V	500	4	220V	11500	
	RG-DD150-503FT	17.5KW	18000	380V	500	3	220V	9700	20
	RG-DJ150-503FT	13KW		380V	500	3	220V	9700	
	RG-DD180-504FT	22.5KW	24000	380V	500	4	220V	11500	22
	RG-DJ180-504FT	16KW		380V	500	4	220V	11500	

TECHNICAL DRAWING

