

Fantasy Series

R410A Water Cooling MT/LT DC Inverter Condensing Units



R410A DC Inverter Compressor

Electric system: 220V/1PH/50Hz(60Hz)

Customer Values

- Low noise
- Low energy consumption (energy saving ~ 25% *)
- Stable food temperature
- Low downtime
- 100% heat recovery

Product Features

- Water-cooled, no indoor cooling, silent
- Compact design, height less than 300m, highly flexible
- No machine room needed, flexibly placing
- Speed range: 30-80rps
- DC inverter compressor, highly energy efficient
- Mature Carel controller, highly reliable, stable food temperature

Product Design Advantages



Horizontal rotary inverter compressor, energy saving up to 25%**



Low temperature spray design to improve operation reliability



Water cooled brazed plate with high heat exchange efficiency

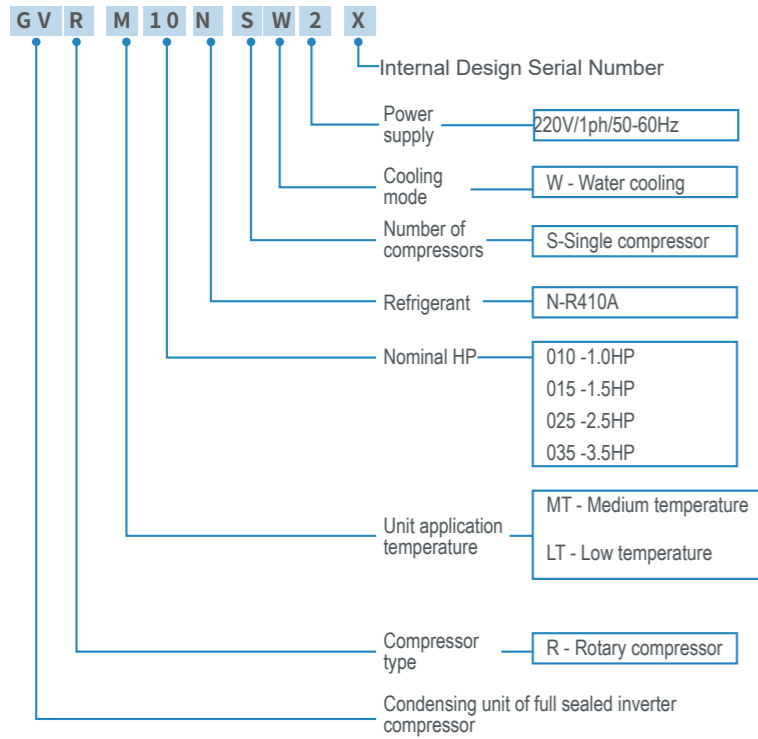


Mature controller for refrigeration

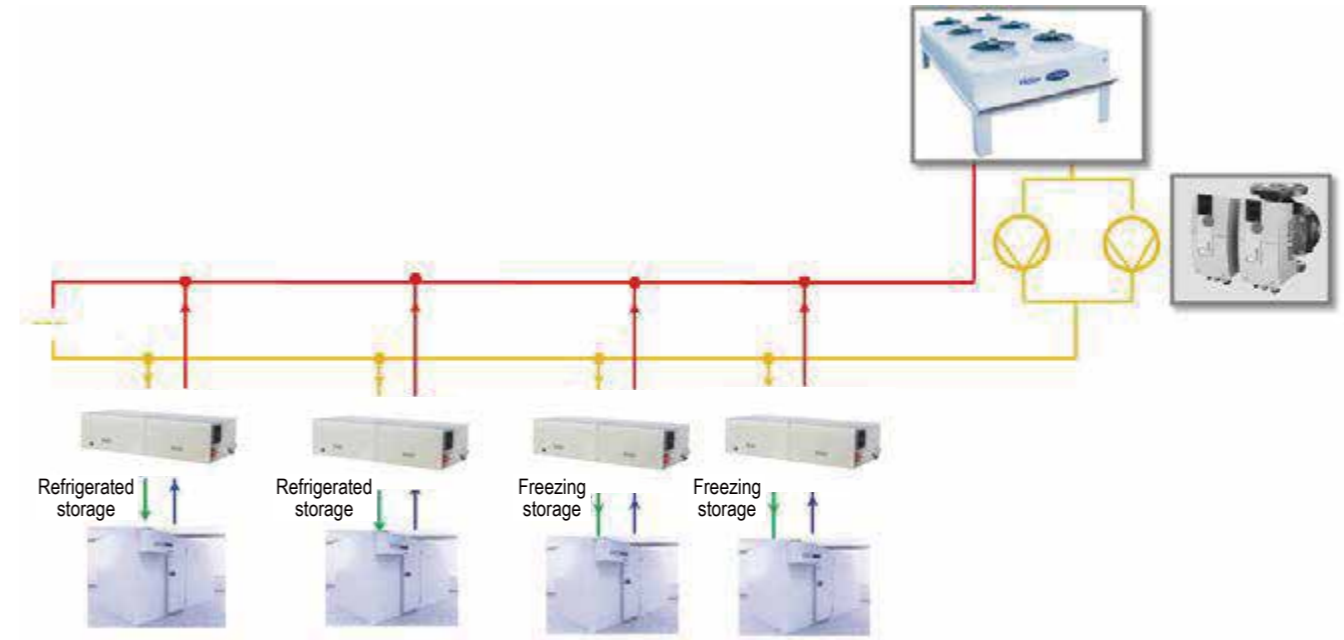
** Data from laboratory

* All comparisons are based on the product performances of last generation.
* Based on third-party data

Water Cooling Inverter Compressor Unit Naming Rule



Brief Introduction of Water Cooling Inverter Compressor Unit



System advantages:

- The refrigeration part of the main machine adopts compressed condensed water cooling inverter unit, which has a small footprint
- The frozen part does not need to choose a place with good ventilation, and the equipment can be placed flexibly
- The refrigeration of each piece of equipment is independently controlled, and the failure of a single piece of equipment does not affect the system's operation using environmentally friendly refrigerant R410A
- Easy to install
- 100% heat recovery

Application Scenarios



Catering chain

Chain restaurants with small medium / low temperature cold storage
 Room temperature: $-30^{\circ}\text{C} \sim +13^{\circ}\text{C}$
 Ambient temperature: $-20^{\circ}\text{C} - +43^{\circ}\text{C}$
 Storage capacity: <5t



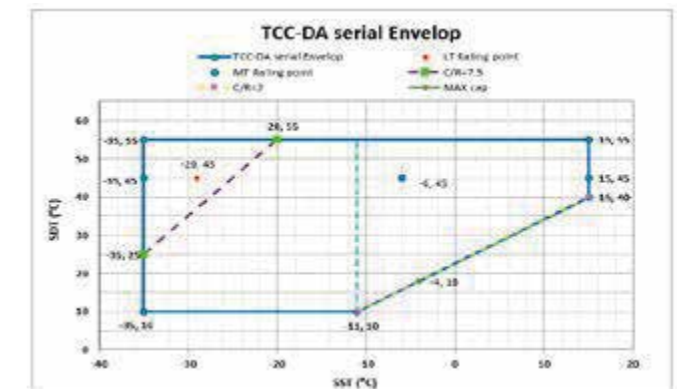
Hotel cold storage

Chain restaurants with small and medium temperatures cold storage
 Room temperature: $-30^{\circ}\text{C} \sim +13^{\circ}\text{C}$
 Ambient temperature: $-20^{\circ}\text{C} - +43^{\circ}\text{C}$
 Storage capacity: <5t

Application Scope of Water Cooling Inverter Compressor Unit

Working Condition	MT/LT
Refrigerant	R410A
Evaporation Temperature $^{\circ}\text{C}$	$-35 \sim +15$

	CDU Name	CDU Model
MT	MT 1HP	GVRM10NSW2X
	MT 1.5HP	GVRM15NSW2X
	MT 2.5HP	GVRM25NSW2X
	MT 3.5HP	GVRM35NSW2X
LT	LT 1HP	GVRL10NSW2X
	LT 1.5HP	GVRL15NSW2X
	LT 3.5HP	GVRL35NSW2X



Water Cooling - MT Technical Parameters

Model		GVRM10NSW2X	GVRM15NSW2X	GVRM25NSW2X	GVRM35NSW2X	GVRM45NSW2X
Refrigerant		R410A				
Ambient Temperature Condition		25°C, 60%				
Rated Running Condition		Evaporation temperature: -5°C, condensation temperature: 48 °C, subcooling degree: 2K, superheating degree: 10K, frequency: 60Hz				
Cooling Capacity	kW	1.69	2.33	4.09	6.14	7.75
Power	kW	0.73	1.04	1.76	2.62	3.23
COP	W/W	2.33	2.24	2.32	2.35	2.35
Plate Replacement Model		B26x8	B26x12	B26x18	B26x24	B26x24
Plate Water Exchange Side Interface Size ¹		Stainless steel, internal thread 3/4"				
water Flow	m ³ /h	0.48	0.76	1.141	1.929	2.343
Noise	dB(A)	<52	<52	<52	<52	<52
Maximum Running Current	A	8.5	9.2	11.1	15.6	25
Power Type		220V - 1ph - 50/60Hz				380V - 3ph - 50/60Hz
Compressor		Silent, efficient, fully enclosed rotary compressor				
Type		Silent, efficient, fully enclosed rotary compressor				
Model		DA91A1FJH-10A	DA130A1FJH-10A	DA220A1FJH-10B	DA330A3FJH-10C	DA420A3FJH-10C
Quantity		1	1	1	1	1
Self-contained Oil		0.4	0.4	0.62	0.9	0.9
Speed Range, rps		30~80	30~80	30~80	30~80	30~80
Reservoir		Vertical		Horizontal		
Type		Vertical		Horizontal		
Volume L		1.8	1.8	3.3	4	4
Overall Dimensions		mm 1100*500*300				
Packing Dimensions		mm 1203*640*440				
Weight	kg	62	63	63.8	65	65.8

Water cooling working conditions: condensation temperature: 48 °C, superheating degree: 10K, subcooling degree: 2K.

¹ It is recommended to select water connector (0080600407) on the plate water exchange side. CDU shall be connected at the external thread side of water connector, and PVR water pipe shall be connected at PP-R side after hot melting.

Water Cooling - MT Performance Parameters

Model	Ambient Temperature (°C)	Capacity Q Power P (KW)	Evaporating Temp °C											
			-12		-10		-7		15		0		5	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
GVRM010NSW2X	25	Q	1.82	2.30	1.97	2.48	2.22	2.78	2.39	3.00	2.87	3.58	3.42	4.23
		P	0.36	0.44	0.36	0.45	0.31	0.45	0.36	0.45	0.39	0.51	0.38	0.51
	35	Q	1.60	2.02	1.74	2.20	1.96	2.47	2.12	2.67	2.56	3.21	3.06	3.82
		P	0.41	0.51	0.42	0.53	0.49	0.64	0.42	0.53	0.52	0.66	0.52	0.66
	45	Q	1.30	1.66	1.42	1.81	1.62	2.06	1.76	2.24	2.15	2.73	2.59	3.29
		P	0.51	0.65	0.52	0.67	0.79	0.99	0.52	0.67	0.73	0.91	0.75	0.93
55	Q	0.87	1.14	0.98	1.28	1.14	1.50	1.26	1.66	1.60	2.09	1.98	2.59	
	P	0.54	0.69	0.56	0.72	0.90	1.12	0.56	0.72	0.80	1.00	0.83	1.04	
GVRM015NSW2X	25	Q	2.60	3.28	2.82	3.55	3.18	3.99	3.43	4.29	4.13	5.14	4.92	6.09
		P	0.51	0.63	0.52	0.64	0.46	0.65	0.52	0.64	0.56	0.74	0.55	0.73
	35	Q	2.27	2.89	2.47	3.14	2.80	3.54	3.03	3.82	3.66	4.61	4.39	5.49
		P	0.60	0.74	0.61	0.76	0.71	0.93	0.61	0.76	0.74	0.94	0.75	0.95
	45	Q	1.93	2.46	2.11	2.69	2.40	3.06	2.60	3.32	3.18	4.04	3.83	4.86
		P	0.73	0.93	0.75	0.96	1.14	1.42	0.75	0.96	1.05	1.31	1.08	1.34
55	Q	1.57	2.01	1.72	2.21	1.98	2.54	2.16	2.78	2.67	3.44	3.25	4.18	
	P	0.77	1.00	0.80	1.03	1.30	1.60	0.80	1.03	1.16	1.44	1.20	1.49	
GVRM025NSW2X	25	Q	4.42	5.52	4.79	5.98	5.38	6.70	5.81	7.21	6.97	8.62	8.29	10.20
		P	0.86	1.05	0.88	1.08	0.82	1.14	0.88	1.08	0.97	1.25	0.95	1.24
	35	Q	3.89	4.88	4.23	5.31	4.78	5.98	5.17	6.46	6.24	7.78	7.46	9.26
		P	1.00	1.25	1.03	1.28	1.21	1.59	1.03	1.28	1.25	1.59	1.25	1.60
	45	Q	3.30	4.17	3.60	4.55	4.09	5.18	4.45	5.62	5.42	6.83	6.53	8.21
		P	1.23	1.57	1.27	1.63	1.92	2.40	1.27	1.63	1.76	2.20	1.81	2.26
55	Q	2.62	3.35	2.88	3.70	3.31	4.26	3.62	4.67	4.49	5.77	5.48	7.03	
	P	1.31	1.68	1.36	1.74	2.20	2.70	1.36	1.74	1.96	2.42	2.02	2.50	
GVRM035NSW2X	25	Q	6.58	8.29	7.13	8.97	8.02	10.06	8.65	10.84	10.40	12.95	12.38	15.34
		P	1.29	1.57	1.32	1.61	1.19	1.72	1.32	1.61	1.43	1.87	1.40	1.86
	35	Q	5.75	7.30	6.25	7.93	7.07	8.94	7.65	9.66	9.25	11.63	11.07	13.86
		P	1.51	1.86	1.55	1.91	1.80	2.39	1.55	1.91	1.87	2.39	1.88	2.41
	45	Q	4.88	6.23	5.33	6.81	6.06	7.74	6.59	8.40	8.03	10.22	9.68	12.28
		P	1.85	2.34	1.91	2.42	2.87	3.61	1.91	2.42	2.64	3.30	2.71	3.39
55	Q	3.96	5.07	4.36	5.60	5.00	6.44	5.47	7.04	6.75	8.70	8.23	10.58	
	P	1.96	2.51	2.03	2.60	3.27	4.07	2.03	2.60	2.92	3.65	3.02	3.76	
GVRM045NSW2X	25	Q	8.41	10.59	9.12	11.46	10.26	12.86	11.07	13.86	13.31	16.57	15.85	19.64
		P	1.65	2.02	1.68	2.06	1.53	2.16	1.68	2.06	1.83	2.38	1.79	2.37
	35	Q	7.35	9.31	8.00	10.12	9.04	11.42	9.78	12.34	11.83	14.87	14.16	17.73
		P	1.92	2.39	1.97	2.45	2.31	3.04	1.97	2.45	2.40	3.05	2.41	3.08
	45	Q	6.24	7.94	6.82	8.68	7.76	9.88	8.43	10.73	10.27	13.06	12.39	15.70
		P	2.36	3.01	2.44	3.11	3.68	4.59	2.44	3.11	3.37	4.21	3.47	4.32
55	Q	5.07	6.48	5.58	7.15	6.40	8.23	7.00	9.00	8.64	11.12	10.52	13.54	
	P	2.51	3.24	2.60	3.35	4.19	5.17	2.60	3.35	3.73	4.64	3.85	4.79	

The minimum and maximum cooling capacity is the selected cooling capacity, corresponding to 60Hz and 75Hz.

Water Cooling - LT Technical Parameters

Model		GVRL10NSW2X	GVRL15NSW2X	GVRL25NSW2X	GVRL35NSW2X	GVRL45NSW2X
Refrigerant		R410A				
Ambient Temperature Condition		25°C, 60%				
Rated Running Condition		Evaporation temperature: -29°C, condensation temperature: 48°C, subcooling degree: 2K, superheating degree: 10K, frequency: 60Hz				
Cooling Capacity	kW	0.5	0.72	1.26	1.89	2.33
Power	kW	0.53	0.76	1.28	1.90	2.42
COP	W/W	0.95	0.95	0.98	1.00	0.96
Plate Replacement Model		B26x8	B26x12	B26x18	B26x24	B26x24
Plate Water Exchange Side Interface Size ¹		Stainless steel, internal thread 3/4"				
water Flow	m ³ /h	0.48	0.76	1.141	1.929	2.343
Noise	dB(A)	<52	<52	<52	<52	<52
Maximum Running Current	A	8.1	8.7	10.8	15.1	20
Power Type		220V - 1ph - 50/60Hz				380V - 3ph - 50/60Hz
Compressor		Silent, efficient, fully enclosed rotary compressor				
Type		Silent, efficient, fully enclosed rotary compressor				
Model		DA91A1FJH-10A	DA130A1FJH-10A	DA220A1FJH-10B	DA330A3FJH-10C	DA420A3FJH-10C
Quantity		1	1	1	1	1
Self-contained Oil		0.4	0.4	0.62	0.9	0.9
Speed Range, rps		30~80	30~80	30~80	30~80	30~80
Reservoir		Vertical		Horizontal		
Type		Vertical		Horizontal		
Volume L		1.8	1.8	3.3	4	4
Overall Dimensions		mm 1100*500*300				
Packing Dimensions		mm 1203*640*440				
Weight	kg	62	63	63.8	65	65.8

Water cooling working conditions: condensation temperature: 48°C, superheating degree: 10K, subcooling degree: 2K.

¹ It is recommended to select water connector (0080600407) on the plate water exchange side. CDU shall be connected at the external thread side of water connector, and PVR water pipe shall be connected at PP-R side after hot melting.

Water Cooling - MT Performance Parameters

Model	Ambient Temperature (°C)	Capacity Q Power P (KW)	Evaporating Temp °C					
			-35		-30		-25	
			Min	Max	Min	Max	Min	Max
GVRL010NSW2X	25	Q	0.58	0.77	0.78	1.01	1.02	1.30
		P	0.36	0.44	0.39	0.51	0.40	0.51
	35	Q	0.49	0.62	0.67	0.85	0.88	1.11
		P	0.41	0.51	0.52	0.66	0.51	0.65
	45	Q	0.35	0.41	0.50	0.61	0.68	0.84
		P	0.51	0.65	0.74	0.93	0.71	0.89
55	Q	0.10	0.08	0.22	0.24	0.36	0.44	
	P	0.54	0.69	0.82	1.03	0.78	0.98	
GVRL015NSW2X	25	Q	0.85	1.10	1.12	1.45	1.45	1.86
		P	0.51	0.63	0.56	0.73	0.57	0.74
	35	Q	0.68	0.87	0.93	1.19	1.23	1.57
		P	0.60	0.74	0.74	0.95	0.74	0.94
	45	Q	0.51	0.62	0.74	0.92	1.00	1.26
		P	0.73	0.93	1.07	1.33	1.02	1.28
55	Q	0.34	0.36	0.54	0.62	0.76	0.93	
	P	0.77	1.00	1.18	1.47	1.13	1.41	
GVRL025NSW2X	25	Q	1.43	1.82	1.91	2.42	2.47	3.12
		P	0.86	1.05	0.95	1.24	0.97	1.25
	35	Q	1.16	1.44	1.60	2.00	2.11	2.65
		P	1.00	1.25	1.25	1.60	1.24	1.57
	45	Q	0.87	1.03	1.26	1.53	1.71	2.13
		P	1.23	1.57	1.80	2.24	1.72	2.16
55	Q	0.55	0.58	0.87	1.02	1.26	1.54	
	P	1.31	1.68	2.00	2.48	1.91	2.37	
GVRL035NSW2X	25	Q	2.15	2.79	2.85	3.67	3.69	4.71
		P	1.29	1.57	1.41	1.87	1.44	1.87
	35	Q	1.72	2.20	2.37	3.01	3.12	3.98
		P	1.51	1.86	1.88	2.41	1.86	2.36
	45	Q	1.29	1.56	1.86	2.31	2.53	3.19
		P	1.85	2.34	2.69	3.36	2.58	3.23
55	Q	0.84	0.88	1.34	1.55	1.92	2.34	
	P	1.96	2.51	2.99	3.73	2.85	3.56	
GVRL045NSW2X	25	Q	2.73	3.59	3.63	4.69	4.70	6.01
		P	1.65	2.02	1.81	2.37	1.84	2.39
	35	Q	2.19	2.82	3.01	3.85	3.98	5.07
		P	1.92	2.39	2.40	3.07	2.38	3.02
	45	Q	1.64	2.02	2.37	2.95	3.23	4.06
		P	2.36	3.01	3.43	4.29	3.30	4.12
55	Q	1.07	1.16	1.71	1.99	2.45	2.99	
	P	2.51	3.24	3.81	4.74	3.63	4.54	

The minimum and maximum cooling capacity is the selected cooling capacity, corresponding to 60Hz and 75Hz.