

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

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

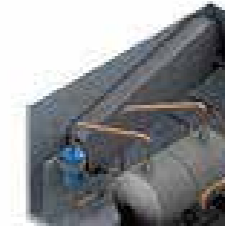
Product Design Advantages



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



Low temperature spray design to improve operation reliability



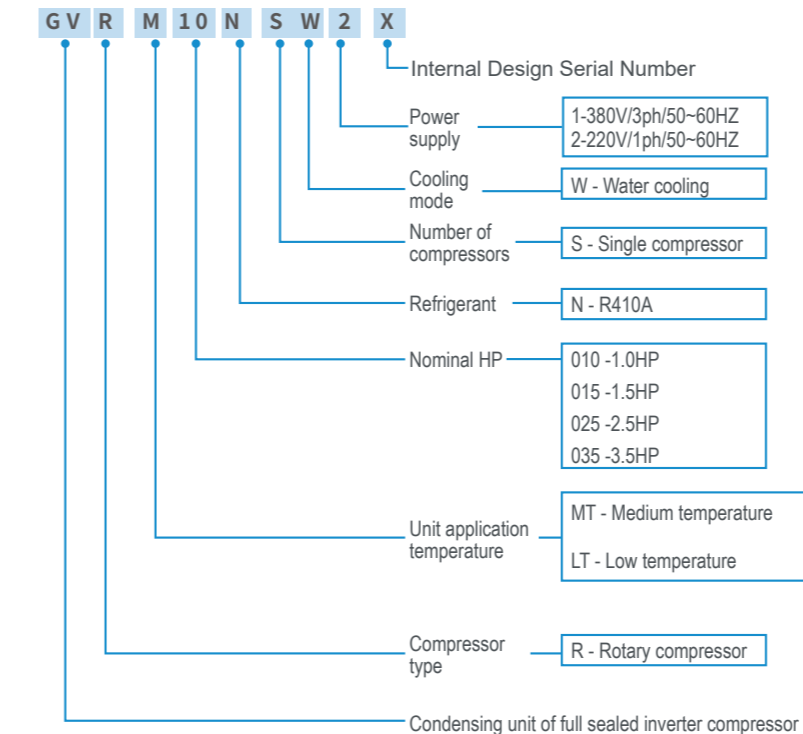
Water cooled brazed plate with high heat exchange efficiency



Mature controller for refrigeration

* Data from laboratory

Water Cooling Inverter Compressor Unit Naming Rule



Application Scenarios

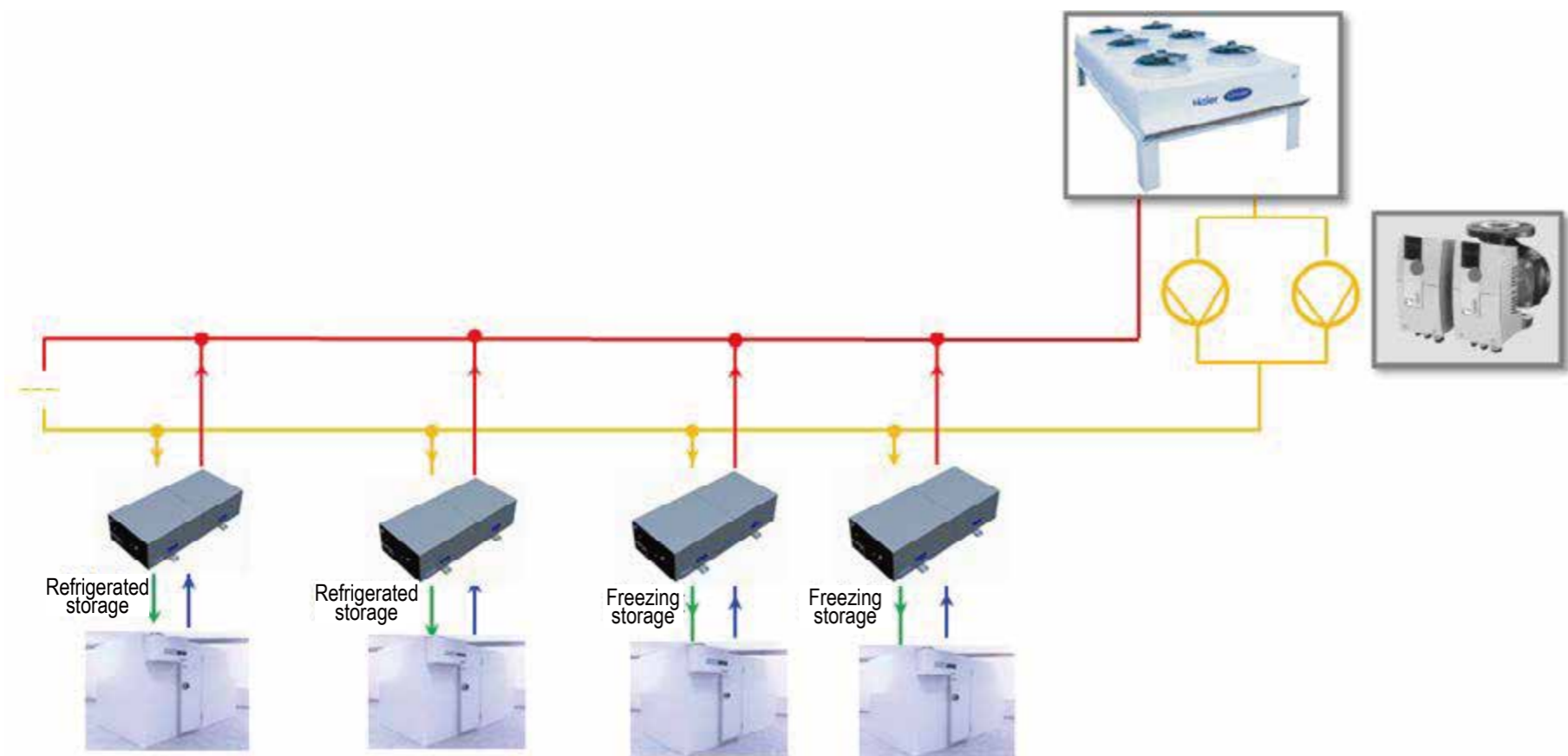


Catering chain
Chain restaurants with small medium / low temperature cold storage
Room temperature: -30°C ~ +13°C
Ambient temperature: -20°C ~ +43°C
Storage capacity: <5t



Hotel cold storage
Chain restaurants with small and medium temperatures cold storage
Room temperature: -30°C ~ +13°C
Ambient temperature: -20°C ~ +43°C
Storage capacity: <5t

Brief Introduction of Water Cooling Inverter Compressor Unit



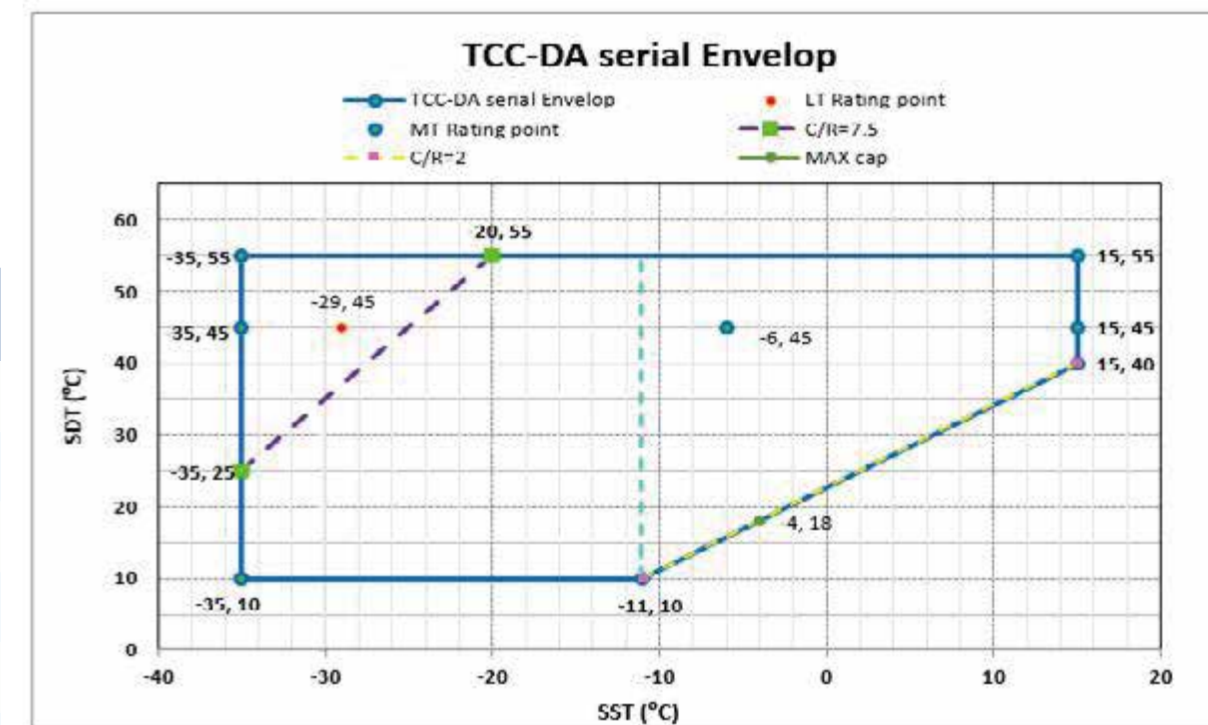
System advantages:

- 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 Scope of Water Cooling Inverter Compressor Unit

| Working Condition | MT/LT |
|----------------------------|-----------|
| Refrigerant | R410A |
| Evaporation Temperature °C | -35 ~ +15 |

| | CDU Name | CDU Model |
|----|----------|-------------|
| MT | MT 1HP | GVRM10NSW2X |
| | MT 1.5HP | GVRM15NSW2X |
| | MT 2.5HP | GVRM25NSW2X |
| | MT 3.5HP | GVRM35NSW2X |
| | MT4.5HP | GVRM45NSW1X |
| LT | LT 1HP | GVRL10NSW2X |
| | LT 1.5HP | GVRL15NSW2X |
| | LT 2.5HP | GVRL25NSW2X |
| | LT 3.5HP | GVRL35NSW2X |
| | LT4.5HP | GVRL45NSW1X |



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 | 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 |
| Frequency Range, Hz | 30~80 | 30~80 | 30~80 | 30~80 | 30~80 | |
| Reservoir | 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 | 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 |
| Frequency Range, Hz | | 30~80 | 30~80 | 30~80 | 30~80 | 30~80 |
| Reservoir | 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 - LT 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.