



Smart air for smarter living

Modular Air Cooled Process Inverter Chillers



32kW

65kW

125kW

-10°C
operation
with glycol

Up to
1040kW
combination



Find out more at www.greeac.co.nz

Gree Modular Air Cooled Inverter Chillers

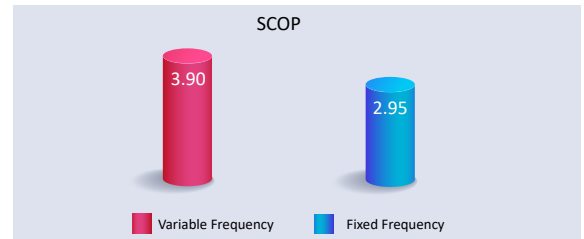
The all new Modular A-Series Inverter Water Chillers are capable of performing cooling all year round with high energy efficiency. They do not require cooling towers and are quite applicable to water deficient areas.

These chillers can be widely utilised with glycol mix down to -10°C in a range of different applications from cold stores, food processing areas, dairy processing breweries and wineries.

Air cooled chillers produce chilled water with inverter scroll compressors, R410a, cooling capacity 32~130kW.

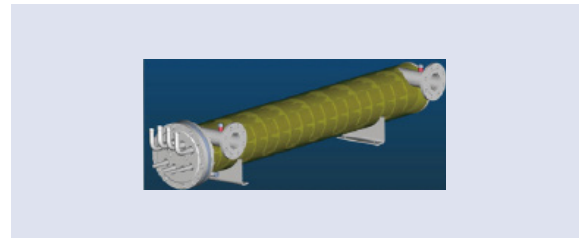
Comfort and Energy Efficiency

The inverter technology can quickly respond to load changes and lead to decreased water temperature fluctuations and better comfort. This also leads to better energy usage.



High Efficiency Shell and Tube Heat Exchanger

The Gree A-Series Inverter Chillers utilise high efficiency shell and tube heat exchangers. Internal baffles ensure the water mixes thoroughly in the heat exchanger to achieve a higher rate of heat transfer. The Gree heat exchangers provide advantages over other types of heat exchangers. The tube spacing virtually eliminates clogging due to foreign matter accumulating from poor water quality or scaling.



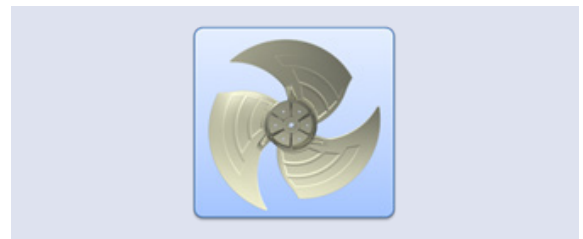
Compressor Operation Balance

The Gree A-Series compressor operation technology ensures that each compressor operates in turn. This reduces the number of stop start cycles on an individual compressor to maximise their lifespan.



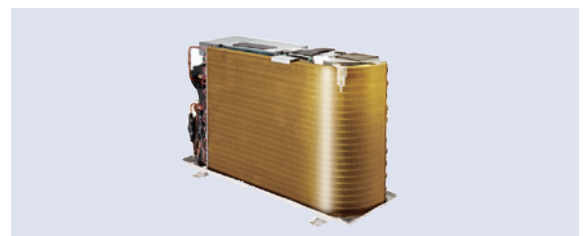
Low Noise Fans

The high efficiency and low noise fan blades and motors as well as the optimized air passage can greatly lower the operation noise of the unit. The addition of a quiet mode also reduces night time noise for an ultra quiet environment.



Gold Fin Coil

The new Gree A-Series Inverter Chiller features Gold Fin coating on the air cooled coil. This offers greater resistance to corrosive elements. Gold Fin coils perform 20x better under salt spray testing than Blue Fin coils. Gold Fin is a hydrophilic coating which repels water.



Remote On/Off

The unit can be started or stopped by the On/Off key operation.

Twin Water Pumps (optional)

Two water pumps can work alternatively with equilibrium runtimes as to extend their service life and lower maintenance difficulty.

Advance Protection Functions

Gree A Series Inverter Chillers are equipped with an advanced microcomputer control system complete with powerful error diagnostics. Some of the main protection functions are:

- Compressor HP
- Compressor Overload
- Antifreeze Control
- High Discharge Temperature
- Temperature Sensor Failure
- Compressor LP
- Overflow control
- Water flow protection
- Phase safety device

Flexible Capacity

With the Gree A Series Inverter Chillers you can combine different units to achieve your required cooling load. You can combine up to 16 units with a cooling capacity ranging from 32kW to 1040kW.

Gree XE73-25/G Microprocessor Controller

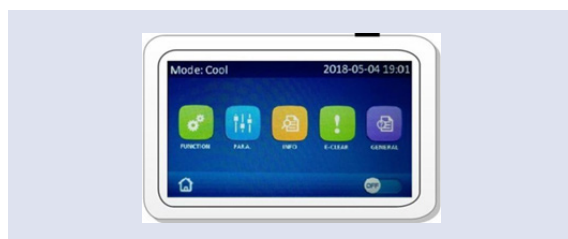
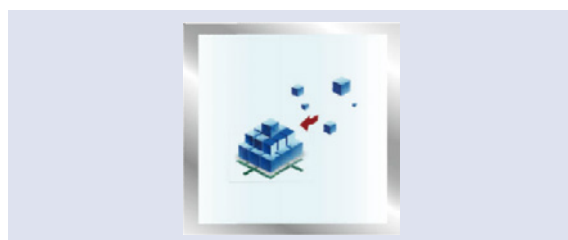
This control panel has been especially designed for the A Series Inverter Chiller. It is capable of controlling and displaying all running parameters of the chiller. Gree have produced a standard controller for air conditioning and a low temp -10°C controller for low temperature processes. This controller can control up to 16 units and with Gree's Free Master connection there is timely communication with all units and a fault on one will not affect the operation of the other units. Modbus compatible.

Gree Intelligent Management System

The long distance monitoring system allows users through a computer to remotely monitor up to 255 A series inverter chillers, including turning on /off the units, setting parameters, giving alarms for malfunctions, which provides an efficient tool for management of the intelligent air conditioning systems for modern buildings.

Environmentally Responsible

Gree A-Series Inverter Chillers use R410a. R410a has a zero ozone depletion potential and is non flammable and non toxic. The Gree A-Series Inverter Chillers come pre-charged so the potential for refrigerant leaks is reduced. Gree chillers also use less refrigerant than a standard VRF system of a similar size.



Cooling Capacity Correction

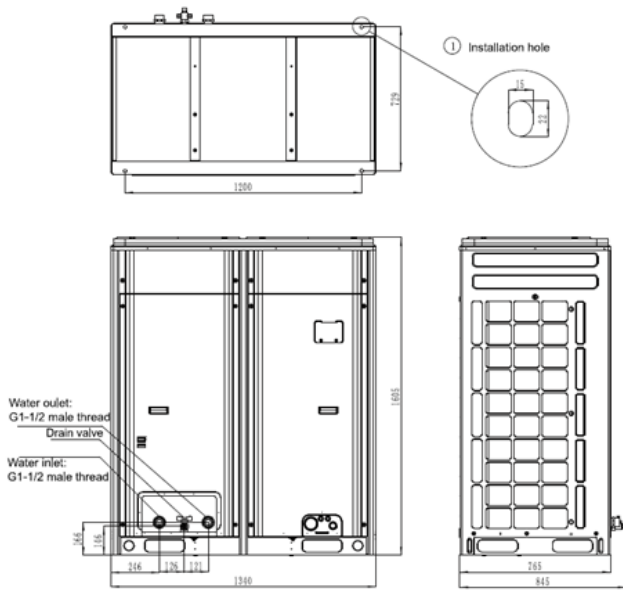
| LSQWF35VM/NhA-M Cooling Capacity Correction | | | | | | | | | | | | | | | | |
|---|-------|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | Ambient Temperature °C | | | | | | | | | | | | | | |
| Water Outlet °C | -15°C | -10°C | -5°C | 0°C | 5°C | 10°C | 15°C | 20°C | 25°C | 30°C | 33°C | 35°C | 37°C | 40°C | 45°C | 52°C |
| -10 | 12.01 | 13.32 | 13.52 | 14.19 | 14.60 | 14.32 | 14.22 | 13.82 | 13.62 | 13.14 | 12.16 | 11.11 | 10.04 | 8.63 | 4.33 | 2.27 |
| -5 | 15.94 | 17.42 | 17.62 | 18.39 | 18.87 | 18.56 | 18.46 | 18.04 | 17.84 | 17.39 | 16.34 | 15.21 | 14.06 | 12.43 | 7.23 | 4.95 |
| 0 | 21.85 | 23.55 | 23.77 | 24.66 | 25.23 | 24.88 | 24.78 | 24.32 | 24.12 | 23.67 | 22.52 | 21.27 | 19.99 | 18.07 | 11.69 | 9.07 |
| 5 | 30.02 | 31.97 | 33.09 | 34.14 | 35.14 | 35.04 | 34.94 | 33.86 | 32.74 | 32.32 | 31.07 | 29.70 | 28.29 | 26.02 | 15.74 | 12.80 |
| 6 | 31.30 | 33.09 | 34.37 | 35.36 | 36.29 | 36.13 | 36.45 | 34.85 | 33.66 | 32.96 | 31.71 | 30.82 | 28.86 | 27.01 | 16.77 | 13.18 |
| 7 | 32.61 | 34.21 | 35.65 | 36.58 | 37.44 | 37.22 | 37.98 | 35.87 | 34.78 | 34.02 | 32.86 | 32.00 | 29.98 | 28.00 | 18.40 | 13.60 |
| 8 | 33.89 | 35.33 | 36.93 | 37.82 | 38.59 | 38.30 | 38.82 | 36.83 | 35.90 | 35.04 | 33.86 | 32.83 | 30.88 | 29.22 | 18.62 | 13.98 |
| 9 | 35.20 | 36.67 | 38.18 | 39.01 | 39.74 | 39.39 | 39.71 | 37.82 | 37.06 | 36.03 | 34.91 | 33.22 | 31.78 | 30.37 | 19.49 | 14.37 |
| 11 | 37.79 | 39.33 | 40.86 | 41.44 | 42.05 | 41.57 | 41.66 | 39.81 | 38.85 | 37.70 | 36.32 | 34.59 | 33.28 | 31.90 | 21.34 | 15.17 |
| 13 | 40.42 | 41.82 | 43.23 | 43.78 | 44.35 | 43.74 | 43.58 | 41.79 | 40.70 | 39.30 | 37.73 | 36.38 | 34.78 | 33.41 | 22.21 | 15.97 |
| 15 | 42.88 | 44.42 | 45.92 | 46.21 | 46.66 | 45.92 | 45.60 | 43.78 | 42.72 | 41.12 | 39.81 | 38.02 | 36.10 | 35.49 | 24.77 | 16.74 |
| 18 | 46.56 | 48.10 | 49.60 | 49.89 | 50.11 | 49.44 | 48.58 | 46.75 | 44.70 | 43.62 | 42.21 | 41.38 | 38.53 | 37.60 | 27.46 | 17.12 |
| 20 | 48.96 | 52.54 | 52.45 | 52.32 | 52.19 | 51.39 | 50.59 | 48.51 | 46.62 | 45.92 | 43.84 | 42.56 | 40.16 | 39.01 | 30.11 | 18.72 |

| LSQWF65VM/NhA-M Cooling Capacity Correction | | | | | | | | | | | | | | | | |
|---|-------|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | Ambient Temperature °C | | | | | | | | | | | | | | |
| Water Outlet °C | -15°C | -10°C | -5°C | 0°C | 5°C | 10°C | 15°C | 20°C | 25°C | 30°C | 33°C | 35°C | 37°C | 40°C | 45°C | 52°C |
| -10 | 35.56 | 38.16 | 38.81 | 39.85 | 40.17 | 39.59 | 39.20 | 37.90 | 37.18 | 35.04 | 32.37 | 29.71 | 26.98 | 24.38 | 15.86 | 8.45 |
| -5 | 44.01 | 46.61 | 47.26 | 48.30 | 48.62 | 48.04 | 47.65 | 46.35 | 45.63 | 43.49 | 40.82 | 38.16 | 35.43 | 32.83 | 24.31 | 16.90 |
| 0 | 54.41 | 57.01 | 57.66 | 58.70 | 59.02 | 58.44 | 58.05 | 56.75 | 56.03 | 53.89 | 51.22 | 48.56 | 45.83 | 43.23 | 34.71 | 27.30 |
| 5 | 68.06 | 70.66 | 73.26 | 74.30 | 75.27 | 75.34 | 74.95 | 72.35 | 69.68 | 67.54 | 64.87 | 62.21 | 59.48 | 56.88 | 41.86 | 34.45 |
| 6 | 69.23 | 72.28 | 76.05 | 75.86 | 77.48 | 76.38 | 75.53 | 73.65 | 70.92 | 67.67 | 66.17 | 63.44 | 60.84 | 58.05 | 43.10 | 35.10 |
| 7 | 70.40 | 73.65 | 77.48 | 77.42 | 79.69 | 77.35 | 76.12 | 74.82 | 72.54 | 69.16 | 67.28 | 65.00 | 62.79 | 59.22 | 44.33 | 35.75 |
| 8 | 71.57 | 74.82 | 78.20 | 78.98 | 81.90 | 78.52 | 77.29 | 76.38 | 73.84 | 70.40 | 68.64 | 66.24 | 65.07 | 60.39 | 45.70 | 36.40 |
| 9 | 72.74 | 75.99 | 78.91 | 80.54 | 84.11 | 79.82 | 78.39 | 77.68 | 75.14 | 71.70 | 69.88 | 67.47 | 65.39 | 61.56 | 46.93 | 37.05 |
| 11 | 75.08 | 79.11 | 81.90 | 83.66 | 86.13 | 82.94 | 81.51 | 80.21 | 77.81 | 74.23 | 72.67 | 70.07 | 67.47 | 63.90 | 49.60 | 38.35 |
| 13 | 77.42 | 82.23 | 84.83 | 86.78 | 88.21 | 86.13 | 84.63 | 83.07 | 80.47 | 77.03 | 75.21 | 72.74 | 70.14 | 66.24 | 52.46 | 39.65 |
| 15 | 79.76 | 85.28 | 87.75 | 89.90 | 90.29 | 89.38 | 86.58 | 86.84 | 83.01 | 79.43 | 77.81 | 74.82 | 72.22 | 68.58 | 55.71 | 40.89 |
| 18 | 82.10 | 88.14 | 91.46 | 94.58 | 96.07 | 93.08 | 91.78 | 89.44 | 86.65 | 83.72 | 81.71 | 78.59 | 75.99 | 71.31 | 59.54 | 42.84 |
| 20 | 85.93 | 90.03 | 93.93 | 97.83 | 99.91 | 95.68 | 95.16 | 91.98 | 88.79 | 86.91 | 84.18 | 80.54 | 77.68 | 74.75 | 60.78 | 44.14 |

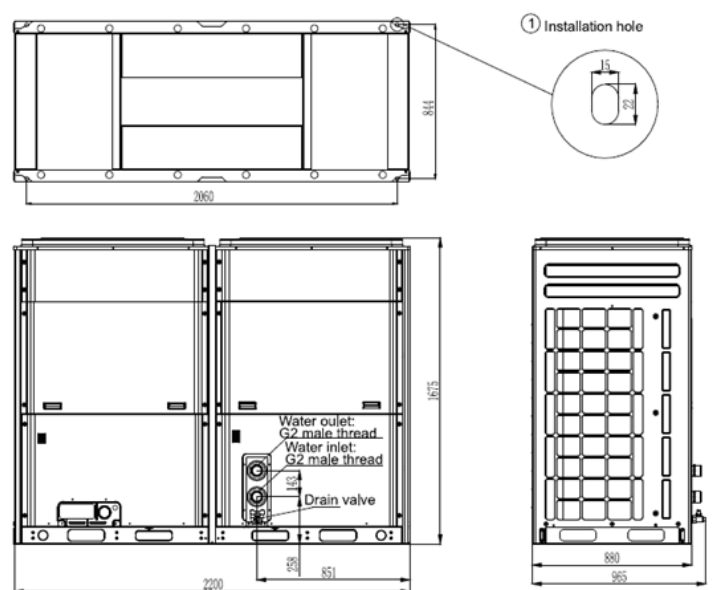
| LSQWF130VM/NhA-M Cooling Capacity Correction | | | | | | | | | | | | | | | | |
|--|--------|------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| | | Ambient Temperature °C | | | | | | | | | | | | | | |
| Water Outlet °C | -15°C | -10°C | -5°C | 0°C | 5°C | 10°C | 15°C | 20°C | 25°C | 30°C | 33°C | 35°C | 37°C | 40°C | 45°C | 52°C |
| -10 | 68.41 | 73.41 | 74.66 | 76.66 | 77.29 | 76.16 | 75.41 | 72.91 | 71.53 | 67.41 | 62.28 | 57.15 | 51.90 | 46.90 | 30.51 | 16.26 |
| -5 | 84.67 | 89.67 | 90.92 | 92.92 | 93.54 | 92.42 | 91.67 | 89.17 | 87.79 | 83.67 | 78.54 | 73.41 | 68.16 | 63.16 | 46.77 | 32.52 |
| 0 | 104.68 | 109.68 | 110.93 | 112.93 | 113.55 | 112.43 | 111.68 | 109.18 | 107.80 | 103.67 | 98.55 | 93.42 | 88.17 | 83.16 | 66.78 | 52.53 |
| 5 | 130.94 | 135.94 | 140.94 | 142.94 | 144.82 | 144.94 | 144.19 | 139.19 | 134.06 | 129.94 | 124.81 | 119.68 | 114.43 | 109.43 | 80.54 | 66.28 |
| 6 | 133.19 | 139.07 | 146.32 | 145.95 | 149.07 | 146.95 | 145.32 | 141.69 | 136.44 | 130.19 | 127.31 | 122.06 | 117.06 | 111.68 | 82.91 | 67.53 |
| 7 | 135.44 | 141.69 | 149.07 | 148.95 | 153.32 | 148.82 | 146.45 | 143.94 | 139.57 | 133.06 | 129.44 | 125.06 | 120.81 | 113.93 | 85.29 | 68.78 |
| 8 | 137.69 | 143.94 | 150.45 | 151.95 | 157.58 | 151.07 | 148.70 | 146.95 | 142.07 | 135.44 | 132.06 | 127.44 | 125.19 | 116.18 | 87.92 | 70.03 |
| 9 | 139.94 | 146.20 | 151.82 | 154.95 | 161.83 | 153.57 | 150.82 | 149.45 | 144.57 | 137.94 | 134.44 | 129.81 | 125.81 | 118.43 | 90.29 | 71.28 |
| 11 | 144.44 | 152.20 | 157.58 | 160.95 | 165.70 | 159.58 | 156.83 | 154.32 | 149.70 | 142.82 | 139.82 | 134.81 | 129.81 | 122.93 | 95.42 | 73.79 |
| 13 | 148.95 | 158.20 | 163.20 | 166.96 | 169.71 | 165.70 | 162.83 | 159.83 | 154.82 | 148.20 | 144.69 | 139.94 | 134.94 | 127.44 | 100.92 | 76.29 |
| 15 | 153.45 | 164.08 | 168.83 | 172.96 | 173.71 | 171.96 | 166.58 | 167.08 | 159.70 | 152.82 | 149.70 | 143.94 | 138.94 | 131.94 | 107.18 | 78.66 |
| 18 | 157.95 | 169.58 | 175.96 | 181.96 | 184.84 | 179.09 | 176.58 | 172.08 | 166.70 | 161.08 | 157.20 | 151.20 | 146.20 | 137.19 | 114.55 | 82.41 |
| 20 | 165.33 | 173.21 | 180.71 | 188.22 | 192.22 | 184.09 | 183.09 | 176.96 | 170.83 | 167.21 | 161.95 | 154.95 | 149.45 | 143.82 | 116.93 | 84.92 |

General Arrangement and Dimensions

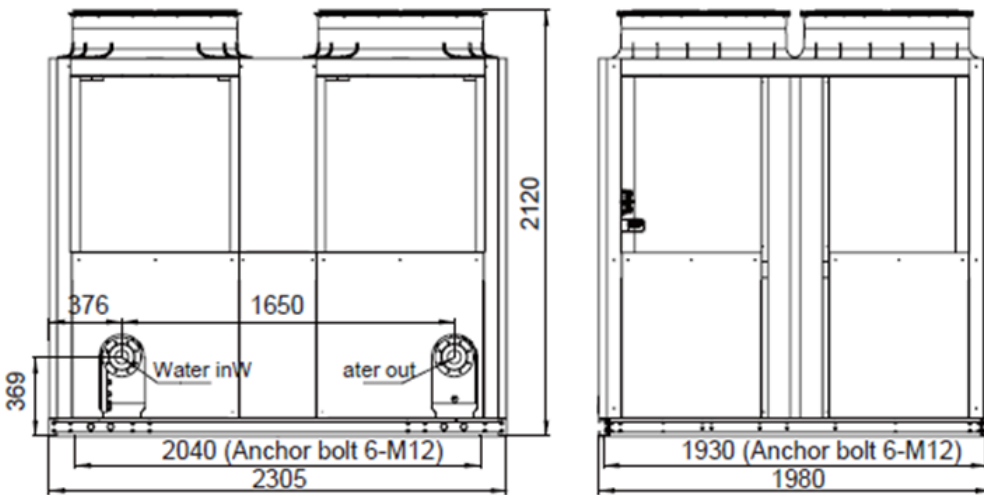
LSQWF35VM/NaA-M (Unit:mm)



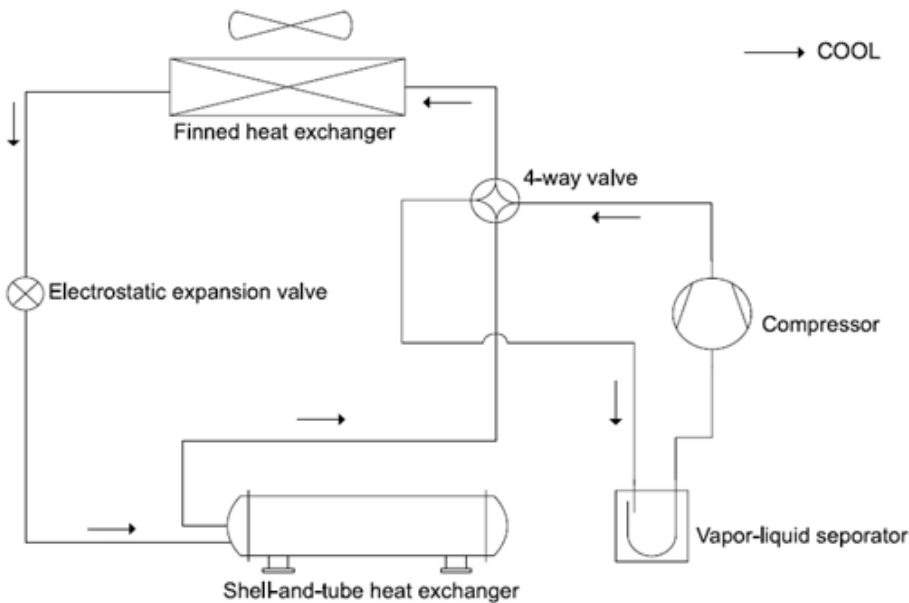
LSQWF65VM/NaA-M (Unit:mm)



LSQWF130VM/NaA-M (Unit:mm)



Principle Diagram



Water Quality and Treatment

Given the distinctive characteristics of copper and steel in water systems, it is crucial to prioritise water quality monitoring.

The recommended pH range is 6.8-8. Additionally, it is advised to consult the installation manual for comprehensive guidance on meeting all water quality requirements.

Specifications

| Model | | | LSQWF35VM/NaA-M | LSQWF65VM/NaA-M | LSQWF130VM/NaA-M |
|--|--|-------------------|--|--------------------|--------------------|
| Series Type | | | Modular Air Cooled Scroll Chiller | | |
| Cooling Capacity | kW | | 32.00 | 65.00 | 125.00 |
| Capacity Adjustment Range | % | | 31.25%~100% | 15.625%~100% | 8.44%~100% |
| EER | W/W | | 2.58 | 2.62 | 2.78 |
| Power Supply | V/Hz/Ph | | 380-415 / 50 / 3 | | |
| Power Input | Cooling | kW | 12.4 | 24.8 | 44.9 |
| Rated Power Input | | kW | 13.4 | 28.8 | 56.0 |
| Cooling Current Input | | A | 20 | 34.6 | 72.0 |
| Safety Protection | | | High-low pressure protection, discharge temp. protection, motor overload protection, anti-freeze, water flow protection, phase-sequence protection, compressor overload protection | | |
| Water Side Heat Exchanger | Type | | Dry Expansion, Sheel + Tube | | |
| | Water flow volume | l/s | 1.52 | 3.1 | 6.2 |
| | | GPM | 24 | 49 | 99 |
| | Pressure drop | kPa | 75.00 | 60.00 | 60.00 |
| | Design Pressure(shell side) | kPa | 1600 | 1600 | 1000 |
| | Design Pressure(tube side) | kPa | 4600 | 4600 | 4600 |
| | Water in/outlet Pipe Diameter | mm | DN32 | DN50 | DN80 |
| Air Side Heat Exchanger | Type | | Aluminium Fin-Copper Tube | | |
| | Fan Type & Qty | | Axial-flow x 2 | Axial-flow x 2 | Axial-flow x 4 |
| | Power Output | kW | 0.75 | 0.75 | 0.75 |
| | Total Air Flow | m ³ /h | 2x6300 | 2x12000 | 4x15500 |
| Compressor Gree – Landa | Brand | | LANDA | | |
| | Model x Qty | | QXAS-H80zN345H x 1 | QXAS-H80zN345H x 2 | QXFS-H80zN345K x 4 |
| | Oil Type | | Inverter Rotary | | |
| Refrigerant | Type | | R410A | | |
| | Charge Volume | kg | 7.8 | 7.8x2 | 7.8x4 |
| Sound Pressure Levels | | dB(A) | 62 | 68 | 69 |
| Dimension | Outline(WxDxH) | mm | 1340x845x1605 | 2200x965x1675 | 2305x1980x2190 |
| | Package(WxDxH) | mm | 1420x920x1775 | 2267x1030x1030 | 2365x2040x2190 |
| Net Weight | | kg | 379.0 | 689.0 | 1320.0 |
| Gross Weight | | kg | 391.0 | 725.0 | 1383.5 |
| Operating Weight | | kg | 416.9 | 757.9 | 1447.0 |
| Water Side Nominal Operating Condition | Inlet Water Temp.(°C) | Cooling | 12 | 12 | 12 |
| | Outlet Water Temp.(°C) | Cooling | 7 | 7 | 7 |
| Water Side Operating Range | Outlet Water Temp.(°C) | Cooling | -10~20 | -10~20 | -10~20 |
| | Temp. Difference between Inlet&Outlet (°C) | Cooling | 2.5~6 | 2.5~6 | 2.5~6 |
| Air Side Nominal Operating Condition | Outdoor Temp. (DB °C) | Cooling | 35 | 35 | 35 |
| Air Side Operating ange | Outdoor Temp. (DB °C) | Cooling | -15~52 | -15~52 | -15~48 |

Nominal test conditions:

Cooling: Ambient Temp 35°C DB, Water Temp 12°C EWT/7°C LWT

Technical specifications are tested under laboratory conditions and may differ as a result of installation or application.



For Installation and Sales:

For Parts and Warranty:



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